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ARCHAEOLOGY SPECIAL

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INDIA

THE FUTURE OF ARCHAEOLOGY IN TAMIL NADU*

Y. Subbarayalu

Archaeology is concerned with the study of the entire human past using the material evidence that has survived the ravages of time. Even though archaeology is usually equated with 'prehistory' it has a lot to contribute to the clarification of historical period also. This paper first reviews briefly the studies undertaken till now in the prehistoric as well as historical archaeology of Tamil Nadu, then highlights some of the unsolved problems and considers future mode of action to solve these problems. It must be clarified at the outset that the archaeology of Tamil Nadu cannot be studied in isolation as otherwise we would be making the mistake of treating it as a *cul-de-sac*.

Archaeological research in India started more than a hundred years ago. Thanks to the efforts of various Institutions and individuals during this long period, particularly during the last five decades, a fair outline of the Indian prehistory is now available. But still there are a number of gaps in the picture. One major reason for this deficiency is that the publication of the results of most field works had been much delayed with the result that no proper feedback of new information tookplace, hampering further active research.

In 1944 the first scientific excavation of a site in Tamil Nadu i.e., Arikamēḍu near Pondicherry, was undertaken by the Archaeological Survey of India (hereafter abbreviated as A.S.I.) and the results were published within a couple of years. But many other excavations undertaken subsequently by the A.S.I. have not been reported fully, though some information has been disseminated through a few sporadic articles. In addition to the A.S.I., the Department of Ancient History and Archaeology of the University of Madras and the Tamil Nadu State Department of Archaeology have been continuously undertaking archaeological field work for the last two decades. Altogether about thirty-five sites have been excavated during the last four decades and among these are included such important sites as Guḍiyam, Paiyampaḷḷi, Kāvirippūmpaṭṭinam, Kāñchipuram, Koṟkai, Karūr, Uṟaiyūr, etc. Full reports have been published so far only for seven of the excavated sites.

Some Districts have been intensively explored by the A.S.I. for fixing up the ancient sites: Pudukkōṭṭai, Chingleput, Madurai, Coimbatore, Dharmapuri and parts of the North Ārcoṭ District. This and the exploratory works of the Madras University Department and the State Department have

*Inaugural Lecture: Archaeology Chair.

brought to light a large number of ancient sites, some of them having good archaeological potential. Here again comparing notes is difficult as detailed reports of the above explanations are not available.

Eventhough full data were not published, some scholars were simultaneously interpreting and making some synthesis of the available material.[1] The first thought-provoking article was written by an anthropologist, C. von Furer Haimendorf (1953) who initiated the debate about the possible Drāviḍian authorship of the iron-using megalithic culture. The first serious treatment of the new archaeological discoveries by a historian is the one found in K.A. Nilakanta Sastri's *A History of South India* (1955).[2] T. Balakrishnan Nair who contributed the relevant chapter to this book made a neat and succinct up-to--date summary of the 'earliest peoples and cultures' of South India. After this, many works on Indian or South Indian archaeology in general have included discussion relating to Tamil Nadu (Subba Rao 1958, Sankalgia 1963, Banerjee 1965, Allchin & Raymond 1968, Gururaja Rao 1972). Recently two works were published by B. Narasimhaiah (1980) and K.S.Ramachandran (1980) specially devoted to Tamil Nadu. And there is a good chapter in the book by K.K. Pillay (1975).

The knowledge accumulated so far from all these works may be summarised as follows. Our understanding of the earliest stage, i.e., the Palaeolithic stage, is still very much limited. No progress has been made beyond the typology of the stone tools picked up in thousands in Attirampākkam and other places in the Chingleput District. The pioneer works of V.D. Krishnaswamy, De Terra and Paterson have not been improved upon so far. The excavations conducted by the A.S.I. at Dudiyam and other nearby places in the Chingleput District should provide a large volume of data if and when the results are published. One thing seems to be certain. That is, the Palaeolithic culturlal material are found only in the Chingleput District. But the Mesolithic/Microlithic tools are available in this District as well as in the coastal tracts of the Tirunelvēli District and in some other localities. Some new information has accumulated about this stage since it was first studied by F.E. Zeuner and Bridget Allchin (Allchin 1966). Recently some work has been done on the Tirunelvēli sites by the archaeologists of the Deccan College (Joshi *et al.* 1980). The most important finding that has

1. The earliest book relating to the archaeology of Tamil Nadu is that of P.T. Srinivasa Iyengar (1926). It must be said that when such works were written the serious study of Indian prehistory had hardly begun. Even after serious work had started some very out-dated books were published. e.g., V.R. Ramachandra Dikshitar (1951).

2. This book was actually completed in 1949 but was published only in 1955.

emerged from these studies is that there exists close similarity between the microlithic tools of the Tirunelvēli and Kerala coasts and those of Śrī Laṅkā.

As for the next stage, the Neolithic stage, more information has been collected since the work started in the 1940's. In the present state of research the Neolithic culture seems to be confined to the Districts of Dharmapuri and North Arcot i.e., to the northern part of Tamil Nadu abutting Karnāṭaka. The impression may change if further work is done as a number of surface finds of Neolithic celts is reported from other Districts also. But habitation and factory sites have been found only in the northern Districts. Paiyampaḷḷi in the North Ārcoṭ District was excavated by the A.S.I. and some section-scraping study of three other sites in the Dharmapuri District was undertaken by Narasimhaiah. While the Paiyampaḷḷi excavation is not yet fully reported, the painstaking study of Narasimhaiah (1980) is significant in that it has tried to make a comparison of the Dharmapuri material with that found in Nāgārjunakoṇḍa in Andhra Pradesh and in the Karnāṭaka sites and by this he has put forth a number of hypotheses to work upon further. According to him there are three Neolithic phases and a pre-pottery Neolithic phase. The excavation at Paiyampaḷḷi has provided a few radiocarbon dates for the Neolithic phase of that site and on typological basis Narasimhaiah dates his three Neolithic phases from c.2800 B.C. This dating has to be confirmed by future researches.

The Neolithic Age was succeeded directly by the Iron Age in Tamil Nadu without the intervening Copper Age as far as othe present excavated evidence goes. Even though previously Iron Age was equated with the 'Megalithic' culture in archaeological literature, most scholars now are wary of the equation. Because the few excavations conducted in the megalithic burial sites after Independence could not clearly relate them to a nearby Iron Age (or megalithic) habitation site and *vice versa*. Independent dating of the megalithic burials to a period earlier than the 3rd century B.C. has not yet been possible whereas Iron Age (habitation) sites have been dated from about 1000 B.C. in northern Karnāṭaka and from the 7th century B.C. at Paiyampaḷḷi.

During the last four decades many new discoveries have been made. An exhaustive account of the known megalithic sites is given by Gururaja Rao (1972) and also by Leshnik (1974). Narasimhaiah has studied the distribution pattern of various megalithic burial types found in Tamil Nadu and mainly on the typlogical basis he dates the various types within a time bracket ranging from 500 B.C. to 100 B.C., the earliest types being found in north-western parts and the latest ones in the Tirunelveli District.

There is still no proper definition of the Early Historical period as far as the excavated material is concerned. If the appearance of writing is taken to mark the

advent of historical period, then c.200 B.C. may be taken as the starting point. This however cannot be easily fixed in the archaeological contexts which do not supply sufficient written material. But some written material has been unearthed in many of the 'historical' sites: Alagarai, Uṟaiyūr, Karūr, Koṟkai, Vallam, Arikamēḍu, Madurai and Koḍumaṇal. In all the sites the transition to the historical period does not show any break. There is a perfect continuity. May be, the historical period saw the introduction of bricks and tiles for constructing buildings. Even though full plans of early structures are not yet available due to the limited nature of the digs, burnt bricks of big size and the grooved tiles were encountered in many of the above sites.

The Problems:

Most of the excavations referred to above by their pioneer nature involved collection and classification of data only. Again they were, with a few exceptions, small scale works. The primary aims of those were to find out the antiquity and the culture sequence for the concerned sites. So they did not require much interpretative work. If some questions were posed they were only incidental. Added to this descriptive nature of the works, the findings were kept by the excavators for themselves and thus failed to attract further research in them. As there were framed no hypotheses for testing, the District-wide exploratory works were also not so fruitful and left unnoticed. Some scholars who asked questions or enunciated hypotheses kept aloof and did not interact much with the actual field workers.

Some of the questions that come to mind immediately on reading the available literature may be mentioned now. Is there a continuity between the Mesolithic (or Late Stone Age) and the Neolithic stages? Narasimhaiah inclines to say so. But his pre-pottery Neolithic phase is yet to be proved convincingly. The relation of the Neolithic culture of Tamil Nadu to that of Andhra-Karnāṭaka area is not clearly settled. Its extension into the southern parts of Tamil Nadu has also to be probed further. A related question is, who were the authors of this culture? Were they autochthonous to or immigrants into the peninsular India? The Allchins suggest that they should have been the speakers of Drāviḍian languages migrated from Iran or thereabouts on the basis of similar pottery and skeletal remains of Caucasoid or Mediterranean features (Allchin 1968).

Certainly there is some discontinuity between the Neolithic culture on the one hand and the succeeding Iron Age culture on the other, though they coexisted for some time during the transition stage. Strangely, there intervenes no Copper Age in peninsular India as in the Deccan and other areas. Next, what exactly is the relation between the people who produced the megalithic burial complex and the people who introduced iron in this area? There seems to exist some time gap between the two events. The impression may prove to be wrong when more evidence is collected. In the Vidarbha region of Mahārāshtra

(about Nagpur) the megaliths are dated by radiocarbon method from the beginning of the 6th century B.C. (Deo and Jamkhedkar 1982). So far no such independent radiocarbon dates are available for the southern megaliths. The present dating is based on typological classification or on some dubious numismatic evidence. In this connection the occurrence or non-occurrence of the so-called Andhra ware or Russet-coated ware has also been used. It has been claimed that this pottery spread from the Karnāṭaka-Andhra region into Tamil Nadu. But actually this pottery seems to have its original home in the Koṅgu region (Coimbatore - Periyār Districts) as it occurs in profuse quantities in this area and outside the area it occurs in proportionately lesser quantities. Gururaja Rao (1972) suggests that the Russet-coated ware might have had its origin and growth in the lower Kāvēri basin, basing his argument on the evidence from the Tirukkāmpuliyūr excavation. But it may be mentioned that in the Thañjāvūr delta this ware has not been noticed so far. At Vallam not a single sherd of this pottery was found. Its clear stratigraphic position and its relation and proportion to the Black-and-Red ware should be studied carefully before any generalisation is made. In this connection the evidence collected from our recent excavation at Koḍumaṇal may help to a great extent as here we get comparable pottery both in the habitation deposit and within the burials.

The next problem is that relating to the authors of the megalithic culture. Many scholars stress, each for his own reasons, that it is the Drāviḍian speakers who introduced the megalithic culture into South India.[3] One basis for all these hypotheses is that the area of the megalithic burial complex and the area of the Drāviḍian speakers almost coincide. The tenuous anthropometric evidence of a few skeletons found in the burials was also used in this connection. Some questions however have to be answered convincingly before this equation is accepted. There is a possibility that iron was introduced into India by a wave of Āryan immigrants about the end of the 2nd millennium B.C. (Allchin, B&R., 1968). But there is no evidence to relate the Āryan-speaking communities with the megalithic monuments, even though Asko Parpola thinks otherwise (Parpola 1973). Secondly, the megaliths appear too late in the South Indian context. Thirdly, the identification of the settled Neolithic communities who had occupied the area right from about 2500 B.C. becomes a problem if they were not themselves the Drāviḍian speakers.

As mentioned above, most megalithic burial sites are found without any habitation nearby. So now some scholars have postulated or revived some old idea that the megalithic people were some sort of pastoral nomads (Deo 1983, Leshnik 1974, Narasimhaiah 1980). S.B.Deo on the basis of some careful statistical

3. A summary of these views is given in Gururaja Rao (1972) and in Narasimhaiah (1980).

analysis of his Vidarbha material points out that agricultural implements are proportionately less compared to war weapons in the iron repertoire of the megalithic burials. Leshnik produces some demographical data to support his idea. Narasimhaiah has also questioned the earlier suggestion that the megalith builders first introduced tank irrigation in Tamil Nadu. All these scholars suggest that the Black-and-Red pottery in the megalithic burials was acquired from contemporary settled communities. If so, what is the evidence for these other communities? Secondly, could some nomadic tribes build such huge monuments which involved lot of labour and a good knowledge of local geology and geography? Moreover, S.B.Deo (1983) has noticed that the megalithic sites are found in clusters in the Vidarbha area, which may not be possible if their founders were nomadic people. So there crop up a chain of such problems if the megalith builders are considered as a nomadic people. But the opposite view also cannot be stressed unless and until a few associated habitation sites are identified and thoroughly excavated.

Whoever were the authors of the megalithic burials in the beginning, they became part and parcel of the Tamil society by the dawn of the historical period. The Cañkam anthologies refer to the popularity of the urn burials (Sirinivasan 1946). They also refer to cremation of the dead. Even in the *Manimekalai* a post-Cañkam text, urn-burials and perhaps cist burials also are mentioned. The Cañkam evidence may provide a clue as to the original authors of the megalithic tradition. That is by the way.

As mentioned earlier, there is no cultural break between the Iron Age and the historical period. But we have still the problem of defining more rigorously the advent of the latter. It has to be checked whether brick-built buildings and the Brahmi writing are peculiar to this stage. Here the evidence from our excavations at Vallam and Koḍumaṇal may be considered. In the limited dig inside the fort area at Vallam near Thañjāvūr, the two bottom most layers, (9) and (8), yielded the Black-and-Red pottery and the associated Red pottery in a total deposit of 0.9 m. The deposit was clearly divisible into two sub-periods. In period I-A (0.6m deposit) the pottery contained a number of graffiti symbols while in the period I-B (0.3 m deposit) the pottery had practically no graffiti. But in I-B a few sherds were found with Brahmi letters. Does this mean that the graffiti, which had been earlier used for some sort of communication, were replaced by the Brahmi writing? It may be mentioned here that many other sites in Tamil Nadu yielded graffiti-bearing pottery. They have to be studied for their proper strati-graphical context to get answer to the above question. At Vallam the graffiti context is put to early 2nd century B.C. by a single radiocarbon date.

At Koḍumaṇal the Black-and-Red ware deposit is about 1.5m to 2m thick and the Brahmi letters seem to appear from the earliest

level. And interestingly, a name written in Brahmi characters was obtained from a cist inside a cairn circle. This may be an evidence for the extension of megalithic burial cult into the historical period.

The excavation at Arikamēḍu has elucidated to some extent the maritime trade of the Tamil country with the Roman empire and by the way confirmed the literary evidence relating to this aspect. But so far very little is known about the internal trade activities and about the general economy. In this aspect the excavated material may help to a great extent. For instance the etched carnelian beads are found in good number in the megalithic graves of Tamil Nadu, particularly in those of the Koṅgu region. Koḍumaṇal has yielded as many as eighty beads from a single burial. Carnelian, a semi-precious stone, is not available locally. Most probably it was imported from Gujarat. It may be recalled here that the Caṅkam poem *Paṭṭiṇappālai* (1.187) refers to 'precious stones and gold from Northern Hills' imported into the port of Kāvirip-pūmpaṭṭiṇam. Such material bearing on the economy of the early period has to be studied more carefully. Textual evidence can be clarified very much by the diligent use of archaeological material.

Even though lot of research has been made in the field of historical archaeology particularly in medieval archaeology (sculpture, architecture, etc.) the literary and inscriptional data have not been adequately used. There is a lot of untapped potential in both the Tamil literature and inscriptions. For instance, there is a lot of information in them relating to ancient place names. It is possible using this data to reconstruct the pattern of ancient settlements and correlate them to the archaeological picture. An attempt has been made by Champakalakshmi (1976) to see whether there exists any correlation between the settlements of the Velirs and the megalithic sites. The demographic information found in inscriptions should also prove to be useful to check the archaeological evidence.

What should be the future course of action? The major defect of the previous archaeological research works was their piecemeal nature. Whatever reasons existed in the past for that, in future, only planned large-scale research projects must be undertaken as far as possible. Otherwise a complete picture of early cultures would never be available. We should aim to unearth completely at least some streets of our early towns and villages. In Koḍumaṇal there awaits us such a bright prospect. A trench in the last excavation revealed as many as eight floor levels, all in the Black-and-Red ware context. Resources may not be a problem if they arejudiciously pooled for joint ventures by the University Departments and the Government Departments. Only a team of archaeologists and scientists in the allied disciplines can cope with the magnitude of the work awaiting. In the Indian context archaeologists can and should take the help of scholars in the literary and linguistic fields. To create awareness

in, and purposeful dialogue on, the new finds, publications must keep pace with the discoveries. Our ultimate aim should be that the results interpreted scientifically should reach and educate the larger public and make them understand the country's cultural heritage in proper perspective.

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VALLAM EXCAVATIONS

Y. Subbarayalu

I. AIMS AND ACHIEVEMENT

The excavations at Vallam were aimed at:
1) To find out the cultural sequence of the site which may be used as a firm datum line for dating the cultural sequence in other sites of the Kāvēri delta.
2) To trace the history of the Vallam fort.

Both the aims have been achieved more or less as may be seen from the data presented in the following pages. This is not the first site to be excavated in this area. Kāvirippūmpaṭṭiṇam was excavated for four seasons during 1962-1966 and Tēraḷundūr (Kambarmēḍu) near Mayilāḍuturai was excavated for two seasons during 1982-84 by the Archaeological Survey of India. But the results of both of them have not been reported so far. So this is the first report on an excavation in the Thañjāvūr District. Luckily a number of charcoal samples were available in the excavation. The Birbal Sahni Institute of Palaeobotany has kindly provided dates to the four samples sent to it. From the dates on hand it may be said that the beginning of the habitation at the site goes to about the 3rd century B.C. Period I-A, the earliest stage in the site, is characterised by the occurrence of graffiti on the Black-and-Red Ware and the associated Red Ware and the occurrence of bone tools. Period I-B is characterised by the occurrence of Brahmi letters and grooved tiles. It has been found that the so-called medieval tiles (labelled in this report as L-shaped tiles) are actually pre-medieval in date as they are associated in their beginning with the Black-and-Red Ware.[1] Of course these tiles continue to occur throughout the later centuries. As far as the present site is concerned bricks as a building material became popular only in Period II. But they were used sparingly even in Period I. This cultural sequence which has been arrived at by a careful analysis of the stratified material may certainly be used for further extension of our knowledge regarding the archaeology of the Kāvēri delta.

Note

1. Dr. K.V.Raman writes that these 'flat' tiles have been found in the early layers in Kāñchipuram excavations and in all medieval house sites. 'The Archaeology of the Sangam Age', *Proceedings of the Indian History Congress*, 1976, pp.50-56.

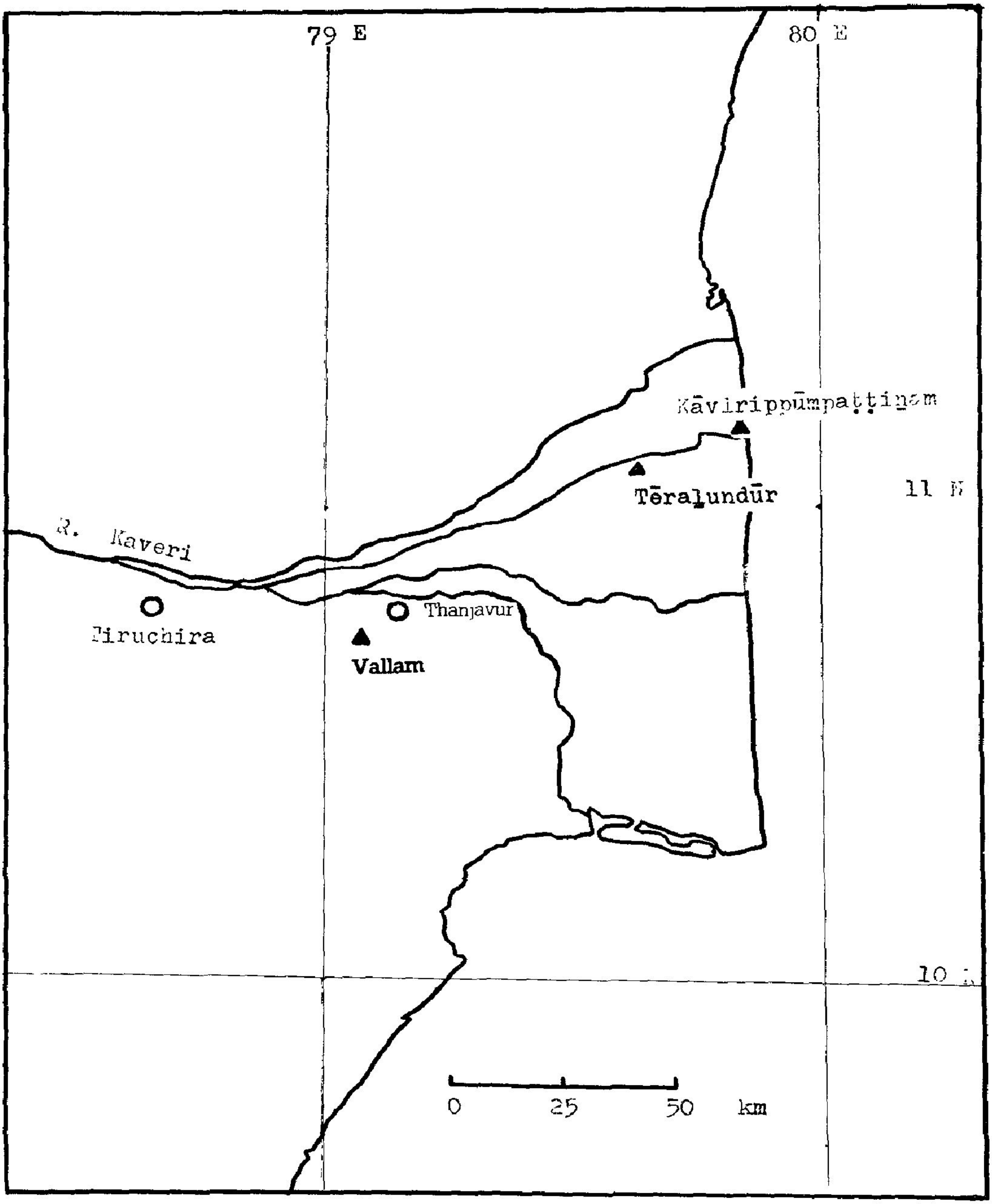
II. INTRODUCTION

Vallam (10°43'N 79°4'E) is a small town 11 km. south-west of Thañjāvūr situated on the Thañjāvūr-Tiruchirāppaḷḷi high road, occupying the north-eastern corner of what is called the low Vallam Tableland (Map 1). It lies between 65 metre contour and 90 metre contour, its average height rising to about 75 m. above the mean sea level. Commanding as it were from its vantage point the Kāvēri delta to its north and east, Vallam played a significant role in the history of the delta throughout the major part of its existence. The prominent landmark of this place at present is the ruined earthen fort on an elevated ground just on the eastern rim of the town. The fort surrounded by a man-made moat has at present only two old temples and fragments of some old walls to proclaim its antiquity.[1] But there is some oral tradition supported by literature, inscriptions, documents and coins vouching for its eventful history spanning over twenty centuries.

Two poems of the Caṅkam literature of the early centuries A.D. refer to Vallam. In one of them *(Akanāṉūṟu: v.336)* composed by the poet pāvaikkoṭṭilār, Vallam is mentioned as a place of the Cōḻas, whose strong defences *(pura-milai)* scattered the army of the Āriyas (perhaps some Northern Chiefs). The second poem *(Akanāṉūṟu: v.356)* by the poet Paraṇar says that Nallaṭi of the Cōḻa line was the lord of Vallam *(Vallam-kiḻavōṉ)*. Most probably the Vallam of the above two poems is identical with the Vallam just now excavated in view of the latter's unbroken political importance in the subsequent Centuries.

Afterwards Vallam is mentioned only in the 8th century in an inscription at Sendalai (EI XIII:136). In this inscription the chief Perumpiṭuku Muttaraiyaṉ is called as the lord of Vallam and the lord of Tañcai (i.e. Thañjāvūr). The Muttaraiya line to which this chief belonged seems to have ruled over the Cōḻa country with its headquarters at Vallam from about the middle of the 8th century (*EI* XIII:136, Krishnan 1981:133-56). They showed a nominal allegiance towards their overlords, the Pallava kings. When Vijayālaya the founder of the medieval Cōḻa dynasty captured Thañjāvūr about the middle of the 9th century the Muttaraiya chiefs lost their independent position and became subordinates of the Cōḻas.

There is however no inscription of the Muttaraiya rulers extant at Vallam. The earliest Cōḻa inscription at Vallam is one of Parantaka I (A.D.947)[2] at the Ēgauri Ammaṉ temple 2 km. north of the place. This one records a gift to the goddess of the temple called the Bhaṭāraki of Vallam by Anantaṉ Kāri alias Pirāntaka-Muttaraiyaṉ. The next inscription[3] dated in the 15th(?) regnal year of Rājarāja I (A.D.1000) refers to the deity as Kāḷāpiṭāri kaitalai-pūcal-naṅkai of Karuvukala-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Kāvirippūmpaṭṭinam
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R. Kaveri
Thanjavur
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MAP 1

Vallam in Ēriyūr-nāḍu and records a gift by a high official with permission from the king who was staying in his day-time residence at Viṇṇaṉēri. The gift was entrusted to the Pāracavar of the local fort *(ik-kōṭṭaiyil pāracavar)* This inscription is significant in more than one respect. The attribute 'Karuvukala' prefixed to Vallam means treasury. That is, Vallam seems to have had a royal treasury. This gets additional support from the fact that the Cōḷa ruler had a residence at Viṇṇaṉēri which must have been close by.[4] And the Vallam fort is referred to clearly in this inscription. Vallam continued to be an important garrison town in the subsequent centuries also as may be gathered from the inscriptions of the ruined Śiva Temple[5] inside the fort. An inscription of Vikrama Cōḷa dated 1127 refers to an order of the king to the army captains *(Paṭai-mutalikaḷ)* at Vallam (*SITI* II:637).

That this place also was a significant mercantile centre is known from later inscription. An inscription of Rājendra II dated 1251 refers to a charity of the local Vāṇiya-nakaram (*SITI* II:643). Tolls were collected on all the merchandise that passed through this place according to an A.D.1262 inscription of the Hoysala King Rāmanātha (*SITI* II:636) who controlled this area for a brief period before it passed into the hands of the Pāṇḍyas. An inscription of Jaṭāvarmaṉ Sundarapāṇḍya I dated in 1263 gives details about the tolls on the movements of paddy and salt (*SITI* II:632).

There were three temples inside the fort according to the above inscriptions, two Śiva temples and a Vishnu temple. The earliest of these temples may be Arikulakesarīśvaram which seems to be identical with the present Vajreśvarar temple near the artificial pond called Vajratīrtham as a 13th century inscription.[6] inside the temple calls it so. Arikulakēsari after whom the temple is named was perhaps the same as his namesake who was a son of Parāntaka I (907-955) (Sastri 1955:142,152).

The second Śiva temple that had existed to the east of the Vishṇu temple was called Karikāla Cōḷīśvaram according to the record of Vikramacōḷa cited above. This was obviously named after Āditya II Karikāla son of Sundara-Cōḷa who was a co-ruler with his father (Sastri 1955:149,51) for some years during 956-69. The Viṣṇu temple was most probably built during the reign of Vikramacōḷa as it is called Vikrama-Cōḷa-Viṇṇakar to which the king further donated large extent of lands. But as all these temples have undergone repairs and renovation their original architecture is not to be seen now. And the second mentioned Śiva Temple has almost disappeared but for a heap of stones.

From the middle of the 14th century to the beginning of the 16th century Thañjāvūr and Vallam lost their political importance as the Vijayanagar Government which ruled the Tamil

country chose Tiruvārūr 50 km. east of Thañjāvūr in the eastern part of the delta and Tiruchirāppaḷḷi 50 km. to the west of Thañjāvūr respectively as the administrative headquarters of their two southernmost provinces (Subbarayalu 1982:84-7). Thañjāvūr and with it Vallam again Came into prominence only when the Nāyakas of Thañjāvūr started their rule about 1530. A few years after the establishment of the Nāyakship of Thañjāvūr by the Vijayanagar emperor Acyuta-Rāya, it is said that, as a consequence of some territorial adjustment, Vallam was handed over to the Thañjāvūr Nāyaka in exchange for Tiruchirāppaḷḷi given to the Madurai Nāyaka.[7] The Thañjāvūr Nāyakas again made Vallam as one of their strongholds. It continued with its renewed vigour for another century. A Jesuit letter dated A.D. 1659 which graphically describes the expedition of the army of Adil Shah of Bijapur on the Thañjāvūr country refers to Vallam as follows (Aiyar 1980:37).

"The third town in the kingdom was Vallamkōṭṭai, three leagues southeast [8] of Thañjāvūr, on a steep rock within which ramparts are erected with incredible labour and expense. By its natural position, and fortification which art had added to it, this fortress was considered impregnable; hence the Nāyak had confined in it his treasures and women and seemed resolute to defend it with all his energy".

That Vallam was thus quite a living settlement is supported by a good number of coins collected by the local people inside the fort.[9] These coins are mostly copper ones. Though there are no legends on them the symbols provide clues as to their issuers. On some coins the figure of gaṇḍabheruṇḍa (a mythical bird) is found. The gaṇḍabheruṇḍa type of coins was issued first by the Vijayanagar emperor Acyuta (1530-42). Many other coins have on one side two figures (deities?) standing, and on the other side a liṅga, a sword and a bull together. On a few coins, the garuḍa or some female deity is also found. There is a general resemblance between these symbols and those found on the coins of the Vijayanagara rulers. But the latter generally contain names of the rulers on one side (Ramesan 1962:44-6) and therefore it would be more appropirate if we take the coins collected at Vallam as those of the Nāyaka subordinates of the Vijayanagar kings.

During the major part of the Marātha rule of Thañjāvūr (1675-1799) Vallam seems to have been treated as before as a first line of defence. When in 1771 the British army under General Smith captured the fort for the Nawab of Karnāṭak, it was still an impregrable one. (Hemingway 1915:49). But after this episode it losot its glory. Even though it was restored to Rāja Tulajāji in 1776 it seems that the fort was not occupied again and it was left to decay as the Marāthas themselves were ousted from power in 1799.

From about 1828 the English

Collector of Thañjāvūr took up his residence here just close to the fort on its southern side in view of the salubrious climate of the place (Hemingway 1915: 279-80). The Collector's residence was here until a few decades ago.

NOTES:

1. There is a local proverb regarding the Vallam fort: 'If one succeeds in the capture of the Vallam fort, the fort of Thañjāvūr will fall on its own accord. (*Vallattuk-Kōṭṭaiyaip-piṭittāl tañcāvūr-kōṭṭai tāṉē vantu cērum*).

2-3. From ink impressions available in the Tamil University.

4. This place, like Vallam, was in Ēriyūr-nāṭu according to Rājarāja I's Thañjāvūr inscriptions.

5. This was called Cōlīśvara temple from which the said inscriptions were copied by the assistants of Col.Mackenzie in the beginning of the last century. Mackenzie's assistants have noted that this temple was to the east of the Perumāḷ (Vishṇu) temple. This Śiva temple which was in good shape until some decades back is now marked only by a small mound of stones.

6. Ink impression in the Tamil University collection.

7. R. Sathyanatha Aiyar, *History of the Nayaks of Madura* (Reprint), University of Madras, 1980.p.37.

8. Mistake for southwest.

9. The local people presented about thirty coins to the Department, which include also a few Cōḷa coins and some English East India Company coins.

III. THE SITE AND THE CUTTINGS

The fort at Vallam in which the excavation trenches were laid occupies, as stated already, the north-east corner of the low tableland named after Vallam.(Map 2). The area to the west of the fort is occupied by the habitation quarters of the Vallam town. In the other directions the area outside the fort is either barren or sparsely cultivated. The striking geographical feature of the surrounding area is the reddish lateritic soil cover. The laterite having a two to three metre thickness overlies strata of gritty sandstones which are clearly exposed in the moat around the fort.

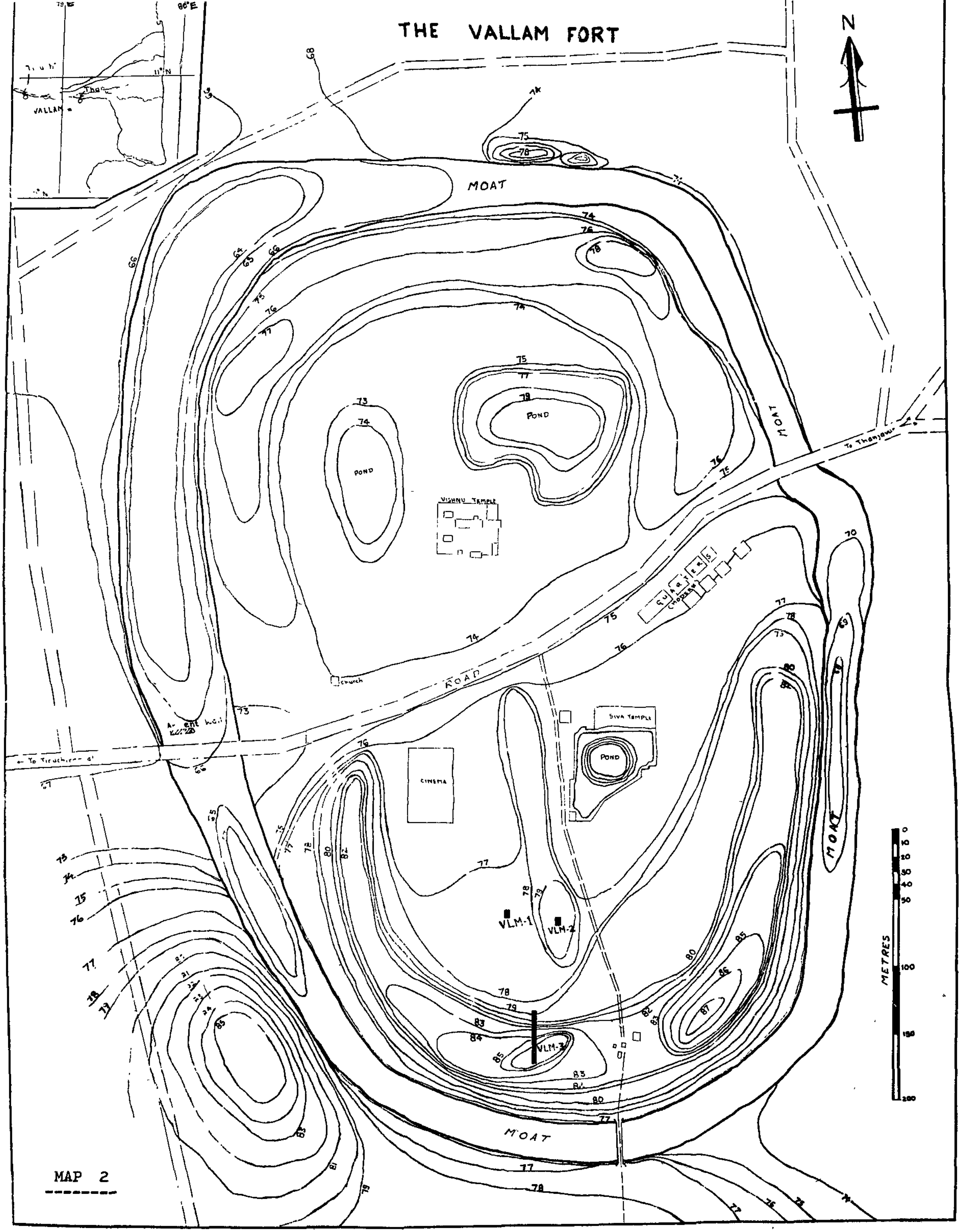
The fort is cut almost into two by the Thañjāvūr-Tiruchirāppaḷḷi Highway passing through it from east-north-east to west. As the fort has been abandoned for more than a century, most of the area within it is now covered with thorny plants and bushes. Inside, the topography is not even. The ground gradually rises from north to south in keeping with the surrounding topography. To the north of the present road there is a fairly big natural pond, about a hectare in extent. The Vishṇu temple is close to this pond on its southern bank. The spot where the Chōḻīśvaram (Śiva) temple stood earlier is a little to the east of the Vishṇu temple, also on the southern bank of the natural pond. The ground to the east and north of the pond has been bulldozed some years ago for constructing the Periyar Centenary Girls Polytechnic. The area to the south of the road is comparatively free from modern construction activities but for some disturbance close to the road. There is also on this side of the road the artificial pond called Vajratīrtham and the small Śiva temple close by.

Stratification:

The southern half of the fort is divided into two by a low ridge-like formation 200 metre long and 20 metre broad lying north-south. The southern part of the ground to the west of the ridge was fairly flat and so the first trench, VLM-1, was laid at this spot. The trench VLM-2 was laid on the ridge itself. Both these trenches were laid after making a small experimental electrical resistivity survey of the flat ground and the ridge (See Appendix 1). The third trench, VLM-3, was made across the fortification wall to the south of the above two trenches. The first two trenches were dug through habitation deposit whereas the third one exposed only the structure of the fort wall.

The excavation, aimed mainly at finding out the cultural sequence of the site, was limited in extent. VLM-1 having the dimensions of 6m. x 4m., including the 25 cm. baulk on the eastern and western sides was exposed completely. It had a total cultural deposit of 2.30 m. VLM-2 was smaller in area measuring only 4 m. by 1.50 m. and yielded a cultural deposit of 3.25 m. Though there was an overall correspondence between the cultural deposits of the two trenches, exact correla-

THE VALLAM FORT



MAP 2

tion of their different layers is not possible due to the limited nature of the dig.

VLM-I revealed a total of nine layers (Fig A). The bottommost two layers,(9) and (8), were made up of loose sandy soil. This soil clearly different from the natural lateritic soil in colour as well as texture must have been transported from some riverbed. Though no floor levels could be identified in these two layers, a hearth-like thing was noticed in layer (9) at a depth of 2 m. Two post-holes were also associated with this hearth. The soil was mixed with ash and charcoal and also bones which clearly attested to the habitational aspect of the layer. In layer (8) also, at a depth of 1.50-1.60 m. two post-holes were noted.

The succeeding layers were mostly made up of sandstone and clay occasionally mixed with lateritic gravel. This material could be easily obtained from the moat surrounding the fort. As one and the same material was used continuously, distinguishing the layers by the colour or texture of the soil was found difficult. Added to this, no floor level or post-holes were seen in the layers (2) to (7).

In the absence of clear clues in the strata careful analysis of the antiquities, particularly potteries, from the successive layers helped in ascertaining the cultural sequence. Layer (9) yielded from its start Black-and-Red Ware and Red Slipped Ware and a rare variety of Red Ware with red painting. This red-painted ware disappeared about the middle of this layer. Up to this stage bone tools, like awls and tanged arrow heads, were found (Fig.27), after which they became rare. Whereas up to this stage iron occurred rarely, it increased subsequently (Fig.28). Both the Black-and-Red Ware and the Red Slipped Ware had quite a number of graffiti marks on them throughout this layer. In layer (8) Black-and-Red Ware and Red Slipped Ware continued but without graffiti marks. However a few sherds contained Brahmi letters of the first century B.C. or first century A.D.

From about the middle of layer (9) a variety of rectangular tiles having grooves were found (Plate X). These grooved tiles continued up to the top level of layer (8). During its later existence the grooved tiles coexisted for some time with a new variety of tiles, which may be called L-shaped tiles (Plate XI). After that the L-shaped tiles replaced the grooved tiles. A few fragments of large-sized bricks were also found in layers (9) to (8). The breadth of these bricks was 22 cm. and the thickness was 6 cm. but the length could not be ascertained.

There is a remarkable change from layer (8) to layer (7) both in soil and contents. Black-and-Red Ware was almost absent in layer (7). Red Slipped Ware also decreased in quantity while the Red Ware continued. An unslipped Black Ware came into use. And bricks with average dimensions of 22 cm. x 12 cm. x 6 cm. were found

in good quantity(Plate IV). Layer (6) contained the same material but for the increase in the L-shaped tiles and Red Slipped Ware. Layers (5) to (2) yielded Red Ware, Red Slipped Ware and Black Ware but less number of tiles. The top layer contained recent glass and Chinaware besides Red Ware.

VLM-2 was found to have seven layers with a total deposit of 3.25 m. (Fig.B). But the thickness of its actual cultural deposit was almost the same as that of VLM-2 as it contained about a metre of dumped earth in layer (3). Its layer (7) and (6) contained almost similar material as the two bottommost layers of VLM-1. Subsequently there was found some evidence of structural activity. Layers (5) and (4) represented respectively a floor level and later debris. The floor was thick and consisted of rammed earth. The associated mud wall was an interesting thing. It was about a metre thick at the bottom and tapered upwards to half a metre thickness (Plate V.A). Though it was made of mud it was found very hard due to the stickiness of the mud. The wall oriented east-west ran into adjoining sections. This wall could not be traced fully due to the limited area of the dig.

The remains of the wall had been preserved up to a height of 1.50 m. due to subsequent filling of the ground on its either side by a metre thick dump of sand-stones (layer (3)). This filling-in was made obviously to raise the ground level, as immediately on the top of the bedding of the dump was found a thin floor paved with lime mortar. The thick mud wall associated with this floor rested partly on the top of the earlier mud wall and was covered by a thin coating of bricks and plastered over with lime(Plate V.B).

The building was in use for a fairly long time as evidenced by many layers of the lime coating of the wall and also by a second floor level. This latter floor consisted of a five-centimetre thick rammed gravel paved with bricks and plastered with lime mortar. The size of the bricks used for the wall coating as well as for the flooring was 22 cm. x 2 cm. x 3 cm.

Chronology

On the basis of pottery the cultural deposit of the site may be grouped under three periods, the first period further divisible into two phases.

Period	VLM-1	VLM-2	Cultural Material
I-A	(9)	(7)	Black-and-Red Ware. All Black Ware. Red Slipped Ware. Red Ware. Red-painted Red Ware. Graffiti. Grooved tiles (in the latter half). Bone tools. Iron (a little).
I-B	(8)	(6)	Black-and-Red Ware. All Black

			Ware. Red Slipped Ware. Red Ware. Brahmi letters. Grooved tiles. L-shaped tiles (in the latter half). Big-sized bricks (a few). Iron objects.
II	(7) (6)	(5)	Red Slipped Ware. Red Ware. Black Ware. L-shaped tiles. Bricks (22 cm. x 12 cm. x 6 cm.).
III	(5) (4) (3) (2)	(4) (3) (2)	Red Slipped Ware. Red Ware. Black Ware. Bricks (22 cm. x 12 cm. x 3 cm.).

As to the absolute chronology of the site we are fortunate in getting the following C-14 dates from the BSIP, Lucknow.

BSIP No.	Trench	Layer	Depth	Years Before Present	Years Christian Era
1.BS-542	VLM-1	(9)	205 cm	2120+100	170 B.C.
2.BS-568	VLM-2	(7)	278 cm	1340+80	A.D. 610
3.BS-569	VLM-2	(6)	265 cm	1120+100	A.D. 830
4.BS-543	VLM-3	(6)	904 cm	1300+100	A.D. 650

The dates provided by sample Nos. 2 and 3 are much younger than the dates estimated on the basis of pottery. Perhaps those samples collected from a pit just below the base of a later (mud) wall had been contaminated. If the dates are taken as correct then the Black-and-Red Ware of Period I-B gets a late date which is not possible. So for the time being the dates are not cosnsidered. The date of 170 B.C. for the earlier part of Period I-A seems to be reliable. As there is some 20 cm deposit below this sample the beginning of Period I, i.e., the beginning of the habitation may be put in the 3rd century B.C. As for the end of Period I which is taken to coincide with the end of the Black-and-Red Ware stage, it may only be guessed. Considering that there is nearly a metre deposit in layers (9) and (8) together we may put the end of Period I in the 4th or 5th century A.D.

Period II may be dated from the 5th century A.D. to the end of the 15th century A.D. Perhaps the mud wall in VLM-2 belongs to this period as on the associated floor a Cōḷa copper coin (Ceylon Type) was found.

Period III is to be put between A.D. 1500 and A.D.1800. This coincides with the rules of the Nāyakas and the Marāthas. The fort is to be dated on the basis of the C-14 date (i.e. BS-543) obtained for the charcoal sample taken from the pre-fortification

layer i.e. layer (7) in VLM-3. This is discussed in the following section.

IV. THE FORTIFICATION

One of the aims of the present excavation was to trace the history of the fort. For this the trench VLM-3 was put across the fort wall at its southern side where the wall had its highest point. The trench laid north to south and measuring 40 m. x 3 m. was made by step-cutting to find out the entire cross-section of the wall. Each of the eight sub-trenches A to H (from south to north) was actually exposed over an area of 5 m. x 2 m. leaving 1/2 m. baulk on either side. Only sub-trench 'A' at the topmost level of the wall was dug up to the natural soil while the other sub-trenches were exposed to a depth of one to two metres only. The total depth reached in VLM-3(A) was 9.25 m. from the surface.

VLM-3(A) contained a metre thick habitation deposit at the bottommost layer(7), over which the fort wall rose (Fig.C.). The habitation deposit consisted of a few Black-and-Red ware pieces and a good quantity of Red Ware comparable to Period II material from VLM-1 and VLM-2. It was observed that the 8-metre high wall resting on the habitation deposit was not made at one stretch as the layer (5) consisting of dark red or black lateritic earth strongly suggested a considerable interval of time during when the weathering of the soil must have taken place. It seems that the wall was constructed in two phases. In the first phase the wall was raised up to a height of 4 m. by using laterite and sandstone dug out from the perimeter area just outside the wall. This process of digging out created simultaneously the moat. Even the first phace of construction seems to have spread over a number of years. Because the deposit of this phase consisted of a good quantity of brickbats and pottery in certain patches, which would support the suggestion that there were some intervals in between the construction activities during when that cultural deposit of brickbats and pottery should have occurred. Otherwise that material interspersed with the sandstones cannot be explained.

The second phase construction raised the wall to almost double its original height, i.e. to about 8 m. above the surrounding ground level. For this raising also the sandstone dug out from the moat was used. But about a metre deposit close to the surface consisting of loose sandy and grey soil (layers (1) to (3)) must have been taken from the habitation side of the wall. This top deposit may be due to periodical repair works subsequent to the main construction phase.

During the second phase, after the wall had been raised to about 8 m. height, a wall of rectangular laterite blocks and bricks was built running over the middle range of the wall. Though in the section of the excavated trench this stone wall was not seen, remnants of its base

were noticed at many places over and above the earthen wall. According to official records a part of this stone and brick wall had been in existence in the beginning of this century in the north-eastern corner of the fort.

There are no ancient records to date the different construction phases of the fort. Luckily, as mentioned above, we have obtained C-14 date for a charcoal sample collected from the habitation deposit (layer (7)) below the fort wall. This date falling in the middle of the 7th century A.D. would suggest that the first phase of construction must have started some time in the 7th century or a little after. This implication if considered along with the fact that the Muttaraiya chiefs had been in active possession of this place about the middle of the 8th century may lead to the conclusion that the first phase of fort was constructed by the Muttaraiyas about this time.

The second phase of the construction may be attributed to the Nāyaka rulers of Thañjāvūr as there was a considerable gap between the two phases as attested by the layer (5). The main reason for choosing this spot for the fortification may be its strategic locationb. This was actually the gateway to the rich Kāvēri delta from the western side. So any early ruler desiring to command the resources of the delta would have chosen this place. The exact location of the fort seems to have been determined by some conducive features of the natural topography of the place. It may be seen from the plan of the site that there is a gradual rise of the ground from the south to the north. There is an elevated spot on the south-western side close to the moat. The first settlement in the site might have chosen the spot considering this natural elevation as a protective barrier. The first builders of the fort wall separated this elevated ground on the south and southwest of the fort by digging up the moat and thus made the habitation more secure.

One of the attractive things of the fort is a natural pond inside it in the northern sector, which must have supplied water to the occupants of the fort. The artificial pond called 'Vajratīrtham' seems to have been made during the second phase of the fortification.

The fort is egg-shaped with about 340 m. breadth at the northern section, 400 m. breadth at midpoint and 300 m. breadth at the southern section. The maximum length north-south is about 630 m. The total perimeter of the wall is about 1900 m. The breadth of the moat is 25 m. to 30 m. for the major part of the perimeter except in the north-western section where it widens to about 70 m. The fort wall has an almost equal elevation with respect to the adjacent parts of the moat, but with respect to a common benchmark, the northern section cf the wall is about 10 m. lower than that in the southern section.

The total area of the fort

excluding the moat is about 20 hectares (50 acres). On a rough estimate the man power required for the construction of the fort may be calculated as follows. If it was constructed at one stretch it would have required about 500 workers working for three years *continuously* on the assumption that for every 1/2 cubic metre of transported earth a man-day is required.

V. POTTERY

The site yielded quite a range of pottery in the different phases within the three cultural periods. The potteries may be categorised as follows:

1. Black-and-Red Ware.
2. All Black Ware.
3. Red-painted Red Ware.
4. Red Slipped Ware.
5. Red Ware.

The first two categories were found in both the phases of Period I and the third category was found in the first phase of Period I. The fourth one continued from the earliest phase to the end of the cultural deposit, but with a short break by the end of Period I. The only ware found throughout the period was the Red Ware.

Black-and-Red Ware

This was the predominant pottery of Period I and included a good number of utilitarion types such as Bowls, dishes, basins and jars.

This ware was made of fine clay and thrown on a slow wheel, had thin section in the case of bowls and comparatively thicker section in the case of basins, jars and *lids. The black surface* on the exterior was not uniform in character.

The available important types of bowls were four in number and the rest of them were more or less their variants. The main types were convex-sided shallow bowls, carinated bowls, deep bowls, and straight-sided bowls.

The convex-sided bowls prevailed in Period I but tend to *diminish in the latter phase of* that period (Fig. 3 and Fig. 16). The carinated deep bowls were simple in form in the lower levels (Fig.1:T.1-14) and much evolved in the later levels such as having corrugation (Fig.4:T.48-52). In earlier levels these were rimless or having incipient rim but in the later level of this phase they-had out-turned or everted rim. Both in-turned and and concave-sided necks were found predominatly in earlier levels and the concavity became deep and prominent in the upppr levels. Straight-sided bowl was strikingly absent in the lower levels. In the closing phase of Period I the bowls of the carinated and convex-sided types diminished and almost disappeared; however a new type of bowl combining both the features appeared in a shape with a rather straight-sided neck and with mild carination at the shoulder (Fig. 16:T.185).

This type of bowl is also included in the associated pottery of all Black ware (Fig.11:T. 140)

and Black Ware (Fig.11, T.137).

This type continued in the subsequent periods in which it was found in Red Ware (Fig.18:-T.201 & 203). There was but slight variation in that the mouth was a bit wider and the section was thicker than the preceeding ones. (Fig.19:224 & 225).

The bases of the bowls were normally round. In a few cases flat base was also noticed. (Fig.6:-T.89-94).

Apart from the bowls there were some dishes, lids, basins, vases, and jars. Dishes were very small in size having thin section. Vases had narrow mouth and almost straight-sided neck. The jars had flared-out rim.

Lids of this ware (Fig.5:T.81 & 82) had their counterparts in the Red slipped ware also (Fig.7:-T.102-103). Basins were small in size (Fig.4:T.72-76) when compared with those in the Red Ware of this period.

All Black Ware

Only few sherds of this ware was found in the earlier phase of Period I and this disppeared subsequently. The ware was quite identical in shape as well as in technique to the Black-and-Red Ware of Period I-A but for the black colour on both the surfaces. The main types of this ware were bowls and vases (Fig.11).

Red Slipped Ware

Two types of the Red Slipped Ware were found at this site. One was associated with the Black--and-Red Ware of Period I and the other one was associated with the Red Ware of the later two periods.

This ware was thicker in section when compared with the associated Black-and-Red ware.

The red slip was applied uniformly on both the surfaces and in a few cases it was applied up to the rim portion on the interior surface. The red slip in the earlier lelvels was applied on both the surfaces but in Periods II and III this red slip was applied only on the exterior surface. Only in a few cases, that too, in the early phase of Period I the slip was applied twice. First coating was given on both the surfaces whereas the second coating was given on the exterior and up to rim on the interior.

The predominant types of this ware were jars and vases and a few bowls and basins were also noticed. The bowls though few were identical to the Black-and-Red Ware bowls (Fig.7:T.95 & 97). Apart from it bowls with tapering sides and with out-turned rim were also noticed (Fig.7:T.99)

The vases had short neck and in-curved and sharpened rim (Fig.8:T.105-104). This type of basin continued in the Red Ware of the later periods.

Another predominant type of this ware was jars having a thin section, wide mouth and globular body (Fig.9:T.18-122;

Fig. 10:T.126-136). A few with flared-out rim were also found (Fig.9:T.123-125).

Strikingly basins were almost absent in the earlier phase of Period I. A few basins appeared in the later phase identical to the Red Ware basins but with one difference in that these basins were having straight-sided body and everted rim.

Red-painted Red Ware

This pottery is found only in the lowermost level of period I-A.

This ware, thrown on a slow wheel, had a thick section. Irregular marks could be seen on the interior sufaces.

Red painting was executed on the exterior up to the shoulder. However the painting was not applied in a systematic and careful way and so the excess painting solution that flowed down in an irregular manner is seen as a row of vertical lines from the painted band (Fig.23). The shapes in this ware could not be reconstructed as the few sherds available did not contain the rim portion.

Red Ware

This is the only pottery found thorughout the occupational deposit. This ware was comparatively less in number in the lower levels and in later levels it outnumbered all other associated wares such as the Black-and-Red Ware and the Red-slipped Ware.

The Red Ware had only few types consisting mostly of jars, vases, and basins. A few bowls resembling the Black-and-Red Ware bowls were also found (Fig.-18:T.199-203) in Period II.

Basins in this ware included both thick and thin varieties having convex and concave-sided body (Fig.14:T.167-69). The convex-sided one was comparatively smaller in size than the concave-sided type (Fig.14:T.164-165). There were also basins with tapering sides (Fig.13:T.156-58) and straight sides (Fig.15:T.172-73). The basins with tapering sides were found in the middle level of period I.

Many basins had nail impressions and these were comparatively smaller in size than the plain variety.

The basins which outnumbered the jars and vases in the lower levels decreased in the later levels, yielding their place to jars and vases.

The jars of this ware were of medium thickness having narrow mouth and bulbous body (Fig.19:T. 146-150), entirely different in shape from those of the Red Slipped ware. These types were totally absent in the later periods.

Vessels of I Period I (Fig.14:-T.151-155) continued in the following, periods (Fig.21:T.241 and 242 and Fig.22:T.257 - 258).

In periods II & III the Red Ware showed some evolution. Some vases began to have long straight-sided neck (Fig.20:T.219).

Lids increased in number (Fig.19:T.207-214). Vases with ledges to hold the lids also increased (Fig.21:T.240, 249 & 250 and Fig.22:T.252). The colour and texture may have changed a bit in the course of evolution but the general types of the Red pottery continued throughout the three periods of this site.

Concordance of the Potteries

The following chart may be helpful to understand the evolution as well as the continuation of the different potteries through the three cultural periods.

Shapes	PERIOD I	PERIOD II	PERIOD III
Basins	Fig.4:T.72-76 Fig.14:T.164-169	— —	— —
Vases	Fig.8:T.105-114	Fig.20:T.218-223	Fig.22:T.254-256 Fig.22:T.259-262
Jars	Fig.9:T.118-122	Fig.20:T.224-226	Fig.22:T.259-264
Vessels	Fig.12:T.151-155	Fig.21:T.241-242	Fig.22:T.251-258
Bowls	Fig.5:T.53-58	Fig.18:T.199-203 Fig.19:T.204-205	Fig.22:T.265

Description of the Types

POTTERY OF I-A

BLACK-AND-RED WARE

BOWLS

Fig.1

T.1 Featureless rim, convex-sided body.

T.2 In-curved rim, carinated body.

T.3 In-curved rim, convex-sided body.

T.4 In-curved rim, carination

at the base.

T.5 Tapering sides, sharp carination towards base. Deep bowl.

T.6 In-curved rim, tapering sides, sharp carination towards base. Deep bowl.

T.7 As above.

T.8 Convex-sided body. Shallow bowl.

T.9 Pointed rim, tapering sides, carinated body. Deep bowl.

T.10 Pointed rim, almost straight-sided body. Deep bowl.

T.11 Featureless rim, convex-sided body, mild carination at the base. Deep bowl.

T.12 Pointed rim, carination at the base. Deep bowl.

T.13 In-curved rim, carination at the shoulder. Deep bowl.

T.14 Slightly everted rim, mild carination at the base. Deep bowl.

Fig.2

T.16 Deep carination towards base. Deep bowl.

T.17 Beaded and everted rim. concavo-convex body. Shallow bowl.

T.18 Pointed rim, mild carination towards base. Deep bowl.

T.19 Everted rim. Deep bowl.

T.20 Slightly carinated body. Deep bowl.

T.21 Cancavo-convex-sided body.

T.22 Similar to above.

T.23 Globular body, sharp carination at the base. Deep bowl.

T.24 Everted rim, almost straight-sided body. Deep bowl.

T.25 Convex-sided body.

T.26 Almost straight-sided body, round base.

T.27 Everted rim, convex-sided body.

T.28 Internally rolled rim, carination at the shoulder.

T.29 Convex-sided body.

Fig.3

T.30 Internally clubbed rim.

T.31 Convex-sided body.

T.32 Almost straight-sided body.

T.33 Convex-sided body.

T.34 In-curved rim, convex-sided body.

T.35 Convex-sided body.

T.36 Flat internally clubbed rim, convex-sided body.

T.37 Pointed rim, convex-sided body.

T.38 Round base. Deep bowl.

T.39 Round base. Deep bowl.

T.40 In-curved rim, convex-sided body.

T.41 Almost straight-sided body.

T.42 Similar to above.

T.43 Rimless, tapering body.

T.44 As above.

T.45 Convex-sided body.

T.46 As above.

T.47 Round base.

Fig.4

T.48 Beaded rim, cancavo-convex-sided body. Deep bowl.

T.49 Everted rim, straight-sided body, carination towards base. Deep bowl.

T.50 Everted rim, concavo-convex-sided body. Shallow bowl.

T.51 Everted rim, two carinations one at the shoulder and another at the base. Shallow bowl.

T.52 Everted round rim, pronounced carination. Deep bowl.

Fig.5

T.53 In-curved rim.

T.54 Almost straight-sided body.
T.55 Convex-sided body.
T.56 As above.
T.57 Convex-sided body.
T.58 Straight-sided body.
T.59 As above.
T.60 Pointed rim, slight cancavity at the centre of the body.
T.61 Straight-sided body.
T.62 Bevelled rim, two bands of vertical painting on the exterior (Russet coated?).
T.63 Sharp flat rim, bulbous body.
T.64 Out-turned sharp rim, convex-sided body.
T.65 Everted Sharp rim, short neck, globular body.
T.66 Rolled rim, almost straight-sided body.
T.67 Beaked rim, almost straight-sided body.

BASINS

Fig.3

T.69 Clubbed rim, deep grooves on the exterior.
T.70 Clubbed rim, convex-sided body.
T.71 Everted rim, almost straight-sided body.

Fig. 4

T.72 Clubbed and internally projecting rim, two grooves on the exterior below the rim.
T.73 Short in-curved rim, deep groove on the exterior.
T.74 In-curved rim, deep groove on the exterior.
T.75 Convex-sided body, round base.
T.76 Flat rim, concave neck.

DISHES

Fig.3

T.77 Sagger base.
T.78 Clubbed rim, carinated body.
T.79 Convex-sided body, round base.
T.80 As above.

LIDS

Fig.5

T.81 Clubbed rim.
T.82 As above.

JARS

Fig.5

T.83 Flared rim.

VASES

Fig.6

T.84 Out-turned rim.
T.85 Flanged rim.
T.86 Straight-sided neck, grooves on the exterior.
T.87 Clubbed rim, convex-sided neck.

BASES OF BOWLS

Fig.6

T.89 Flat base, convex sided body.
T.90 As above.
T.91 Flat base, tapering side.
T.92 Flat base, convex-sided body.
T.93 As above.
T.94 As above.

RED SLIPPED WARE

BOWLS

Fig.7

T.95 Convex-sided body.
T.96 Beaded rim, deep carination

towards base.
T.97 Cancavo-convex-sided body.
T.98 Externally pointed rim, convex-sided body.
T.99 Out-turned undercut rim, tapering body.
T.100 Flared rim. Lid-cum-bowl.

LIDS

T.101 In-curved rim.
T.102 As above.
T.103 As above.

BASIN

T.104 In-curved rim, deep grooves on the neck.

VASES

Fig.8

T.105 Out-turned rim, straight-sided neck.
T.106 Everted rim, straight-sided neck.
T.107 Flared rim, neck is almost absent.
T.108 Clubbed rim, straight-sided neck.
T.109 Clubbed rim, thin band on the rim.
T.110 Out-turned rim, almost straight-sided neck, thin band on the exterior.
T.111 Clubbed rim, straight-sided neck.
T.112 Clubbed rim, straight-sided neck.
T.113 As above.
T.114 Everted rim, deep bands and grooves on the neck.

Fig.9

T.115 In-curved rim, prominent band and grooves on the straight-sided neck.
T.116 Externally banded rim, concave-sided neck.
T.117 Pointed and sharpened rim, convex-sided neck.

JARS

Fig.9

T.118 Clubbed rim, neck almost absent, globular body.
T.119 Clubbed rim, neck almost absent, globular body, one row of nail impression on the shoulder.

T.120 Everted rim, neckless, grooves on the shoulder.
T.121 Round rim, neckless, globular body.
T.122 Everted rim, neckless globular body.
T.123 Flared rim, neck almost absent.
T.124 Flared rim, neckless.
T.125 As above.

Fig.10

T.126 Flared rim, short neck, globular body.
T.127 Out-turned rim, neckless, globular body.
T.128 Out-turned rim, neckless, globular body, series of grooves on the shoulder.
T.129 Out-turned rim, neckless, globular body.
T.130 Out-turned rim, concave neck.
T.131 Clubbed rim, concave neck.
T.132 Bevelled rim.
T.133 Flared rim, globular body.
T.134 Flared rim, neckless, globular body.
T.135 Flared rim, globular body.
T.136 Clubbed rim.

ALL BLACK WARE

BOWLS

Fig.11

T.137 Series of grooves on the exterior, round base.

LID-CUM-BOWL

T.138 In-curved rim, prominent flange at the shoulder.
T.139 Pointed rim.

BOWL

T.140 Grooves below the rim, convex-sided body.

VASES

T.141 Clubbed rim, straight sided neck.
T.142 Rolled rim, concave neck.
T.143 Slightly out-turned and rolled rim.
T.144 Rolled rim, almost straight-sided neck.
T.145 Bevelled rim, concave-sided back.

RED WARE

JARS

Fig.12

T.146 Clubbed rim, row of nail impressions below the rim.
T.147 Clubbed rim, neckless.
T.148 Clubbed rim, globular body, neckless.
T.149 As above.
T.150 As above.
T.151 Externally sharpened rim, deep groove on the globular body.

VESSELS

T.152 Pointed rim, tapering neck, globular body.
T.153 Clubbed rim, mild carination at the centre of the body.
T.154 Round rim, concavo-convex body.
T.155 As above.

BASINS

Fig.13

T.156 Tapering sides.
T.157 In-curved rim, tapering sides.
T.158 Tapering body, prominent flange on the interior.

T.159 In-curved flat rim, concave neck, straight-sided body.
T.160 Clubbed rim, convex-sided body.
T.161 Clubbed rim, thin band below the neck.
T.162 In-curved rim, externally grooved.
T.163 In-curved rim, tapering body.

Fig.14

T.164 Bevelled externally banded rim.
T.165 As above.
T.166 Clubbed rim.
T.167 In-curved rim, deep groove on the exterior.
T.168 In-curved rim, series of bands and grooves on the shoulder.
T.169 In-curved rim, a band on the exterior.

Fig.15

T.170 In-curved rim.

T.171 Clubbed rim.
T.172 Round rim, almost straight-sided body.
T.173 In-curved rim.
T.174 Round rim, straight-sided body.
T.175 In-curved rim, row of oblique designs on the exterior.
T.176 Clubbed rim, two rows of irregular nail impression design on the exterior.
T.177 In-curved rim, externally grooved, row of oblique nail impressions on the exterior.
T.178 As above.
T.179 As above.

POTTERY OF PERIOD I-B

BLACK-AND-RED WARE

BOWLS

Fig.16

T.180 Convex-sided body, internally rolled rim.
T.181 Concave neck and round base.
T.182 Straight-sided neck and round base.
T.183 Rolled rim, sagger base.
T.184 Almost straight-sided body.
T.185 In-curved rim, almost straight-sided body, carination at the base.
T.186 Base of a pot with graffiti.

LID

T.187 In-curved rim, carinated body, sagger base.
T.188 Narrow mouth, almost straight--sided neck.

RED SLIPPED WARE

BASINS

Fig.17

T.189 In-curved rim, row of nail impressions on the exterior below the rim.
T.190 Heavy banded rim, short neck.
T.191 Flanged rim. wide mouth, round base.
T.192 Thickened rolled rim.
T.193 As above.

JARS

T.194 Flared rim, two bands on the shoulder.
T.195 Out-turned sharpened rim, globular body.
T.196 Heavy clubbed rim, globular body.

BOWL

T.197 Concave neck. Slightly carinated body.

VASE

T.198 Bevelled rim.

PERIOD II

RED WARE

BOWLS

Fig.18

T.199 Beaked rim, mild carination at the base. Deep bowl.
T.200 Mild carination at the base. Deep bowl.
T.201 In-curved rim, convex-sided body.
T.202 In-curved rim, externally grooved.
T.203 In-curved rim, convex-sided body.

Fig.19

T.204 Externally clubbed rim, grooved on the exterior.
T.205 Convex-sided body.

LIDS

Fig.18

T.206 Tapering body, prominent flange.

Fig.19

T.207 Externally beaded rim sagger base.
T.208 Externally grooved below the rim.
T.209 Externally sharpened rim, carinated body.
T.210 Undercut rim.
T.211 Banded rim.
T.212 Carinated body, round base.
T.213 Prominent grooves and flanges on the exterior.
T.214 In-curved rim, rather deep, sagger base.

JARS

Fig.18

T.215 Heavy bevelled rim, internally and externally grooved, short neck.
T.216 As above.
T.217 Clubbed rim.

Fig.20

T.218 Everted rim, straight-sided body, externally grooved.
T.219 Flared rim, thin band on the neck.
T.220 Rolled rim, short neck.
T.221 Beaked rim, concave neck.
T.222 As above.
T.223 Externally sharpened rim, prominent band on the neck.
T.224 Flared rim, externally grooved at the centre of the body.
T.225 Everted rim, neckless, globular body.
T.226 Flared rim.
T.227 Clubbed rim, concave neck, two grooves externally at the centre of the globular body.
T.228 Rolled rim, narrow neck, straight-sided body.
T.229 Flat base of a jar.

Fig.21

T.230 Clubbed rim, series of grooves on the shoulder.
T.231 Bevelled rim.
T.232 Undercut everted rim, internally grooved.
T.233 Beaked rim.
T.234 Externally grooved rim, series of grooves on the shoulder.
T.235 As above.
T.236 As above.
T.237 Externally and internally grooved rim.
T.238 Sharpened externally grooved rim.
T.239 Bevelled rim, small ledge on the interior at the neck.
T.240 Prominent flange on the interior at the neck.

VASES

Fig.21

T.241 Thick bevelled rim, two thin grooves on the neck.
T.242 Undercut rim, straight-sided neck.
T.243 Flanged rim.
T.244 Flanged and undercut rim.
T.245 Flared out sharpened rim, corrugation on the interior of the rim.
T.246 Externally sharpened rim, two grooves on the interior

and another on the exterior.

T.247 Thickened rim, straight-sided neck.

T.248 Grooved rim with nail impression on the exterior.

T.249 Externally and internally grooved rim, pronounced flange on the neck.

T.250 Externally and internally grooved undercut rim, prominent flange on the exterior.

T.251 Bevelled rim.

PERIOD III

RED WARE

VASES

Fig.22

T.252 Fairly long straight neck, pronounced flange at the neck.

T.253 Centrally grooved rim.

T.254 Centrally grooved rim with nail impressions.

T.255 Centrally grooved rim, convex-sided body.

T.256 Flared and grooved rim, series of grooves on the interior of the body.

VESSELS

T.257 Flared rim, grooves at the shoulder, carinated body.

T.258 Everted rim, multi-ridged shoulder, carinated body.

JARS

T.259 Grooved rim.

T.260 As above.

T.261 Heavy rolled rim, hardly any neck.

T.262 Out-turned and undercut rim.

T.263 Out-turned rim.

T.264 Bevelled rim, internally grooved.

BOWL

T.265 In-curved rim, straight-sided neck, carinated body, sagger base.

VI GRAFFITI

The site yielded a rich collection of the graffiti on pottery. The graffiti which included a number of symbols were found on the Black-and-Red and Red Slipped Wares of Period I-A only. It has been mentioned above that in Period I-B Brahmi letters were found scratched on some sherds (Fig.26). Assuming that there is some correlation between the disappearance of graffiti and the appearance of Brahmi a hypothesis may be advanced that once a writting system, in this case the Brahmi script, came into popular use the graffiti which seem to have been used for some sort of communication were given up.

The Vallam graffiti were all post-firing in nature and found only on the exterior surface. Mostly they were found on the shoulder of vessels closer to the rim portion. From the available evidence it may be said that the symbols were scratched generally in singles but in some cases two symbols were also found together. The Red Slipped pottery containing graffiti were more in number than their Black-and-Red Ware counterparts. For each graffiti-bearing Black-and-Red potsherd there were two graffiti-bearing Red potsherds. The graffiti are described below. The description of about fifty per cent of the symbols is only tentative as the

full forms are not available on the broken sherds on hand.

Description of the Graffiti

No. in Fig.24

1. There are three symbols: (i) Three vertical lines at regular interval, (ii) A vertical line intersecting a curvilinear line, (iii) Looks like a stylized human figure.

2. Vertical line joined with two oblique lines on either side.

3. The symbol consists of a vertical line with a series of oblique strokes branching out on its either side.
4. A vertical line with three oblique lines. Fragment.

5. Vertical line joined on right side by a series of oblique strokes and by a single stroke on the left side.

6. Similar to symbol 2 Fragment.
7. Vertical line joining a horizontal line at the centre.
8. A vertical wavy line and joining oblique line. Fragment.

9-10. Looks like the English letter 'W' the left vertical line having a small horizontal stroke at the top.

11. A trident-like symbol.

12. Similar to the above but with the central stroke further elongated downwards.

13-14. Four lines cutting one another almost at a common point. Out of the four lines one is vertical, another is horizontal and the other two are oblique lines.

15. Oblique lines intersecting at a point. Fragment.

16. Fragment. Perhaps two pairs of oblique lines meeting each other. Compare No.67 below.

17. Stylized Sun Symbol.

18-20. Two oblique lines cutting each other at an acute angle.

21. Two lines making an acute angle.

22. A circle touching a semi-circle and looking like the Brahmi letter 'ma'.

23. Horizontal line resting on two oblique lines meeting at a point.

24. Stylized crescent (?).

25. Perhaps similar to No.1.

26. A 'V' - like symbol and a reversed 'V'.

27. Two oblique lines cutting each other at an actue angle within two parellel lines. Fragment.

28-30. Ladder symbol.

31. Ladder carrying an 'equipoise' (*Kāvaḍi*).

32. Fragment.

33-40. Two parellel lines joined by a line or two.

41. Step-like symbol.

42. Looks like a plant with roots. Or a trident resting on a balance.

43. Looks like an equipoise (*kāvaḍi*).

44-45. Group of parallel lines. Fragment.

46. 'M' - like thing.

47. Stylized crescent (?).

48. Bow and arrow.

49-50. Perhaps bow and arrow. Fragmentary.

51. Inside two parallel vertical lines there is an arrow and a wavy line.

52. Three vertical parallel lines.

53. Two curvilinear lines joined by a vertical line.

54&55. Two parallel horizontal lines.

56. Fragment.

57. Semicircle. Fragment.

58. Vertical wavy lines.

59. Fragment of a complex symbol.

60. Three vertical lines at regular intervals.

61. Two parellel loops.

62. A symbol looking like the Brahmi letter 'ma' (𑀫) inside two parallel loops.

63. Two parallel loops cut by a vertical line with a prong at the bottom.

64. Two parellel irregular loops.

65. Two parallel vertical lines, of which one is cut by an oblique line.

66. Three vertical lines.

67-68. Stylized fish.

69. 'W' shaped symbol.

70. Triangle with the arms extending outwards.

71. Fragment.

72. Fragment.

73. Perhaps similar to No.67.

Concordance

Since B.B.Lal (1960: 4-24) made his analysis of the graffiti on the Megalithic pottery in relation to other earlier potteries, not much work has been done relating to this problem. A table is given below indicating the concordance of the different symbols in Vallam graffiti with those found in other excavated sites so as to help further research in this regard. It may be noted from the table that many of the graffiti found at Vallam have some corresponding symbols in many other

sites right from the Harappan period. The correspondence would have been still better had the graffiti been found on unbroken vessels.

In the table, the material for the second row is taken from B.B.Lal's list. The numbers in that row are as given in that list. The material for some other rows has also been taken from B.B.Lal, but it has been checked as far as possible by referring to some other published sources, original as well as secondary. (T.V.Mahālingam 1970, N.R.Banerjee & K.V.Soundara Rajan 1959: 4-42, L.S.Leshnik 1974, M.G.Dikshit 1968).

CONCORDANCE OF THE GRAFFITI (Fig.24)

S.No.	Site	Serial No. of the Vallam Graffiti										
1.	Vallam	1	2	3	4	5	6	7	8	9	10	11
2.	B.B.Lal's List					41						
3.	MEGALITHIC EARLY HISTORICAL Korkai											*
4.	Tirukkām-puliyūr											*
5.	Alagarai									*		
6.	MEGALITHIC Hyderabad Area		*	*		*				*	*	*
7.	Sānūr											*
8.	Kunnathūr											
9.	Perumber					*						

Sl. No.	Site	Serial No. of the Vallam Graffiti										
		1	2	3	4	5	6	7	8	9	10	11
10.	T. Narasipūr					*						
11.	Kauṇḍinya-pura		*	*								
12.	Paḻaṉi Hills											
13.	CHALCOLITHIC Nevasa											
14.	Chaṇḍōli											
15.	Prakash											
16.	HARAPPAN Amri											
17.	Harappa											*
18.	Kalibaṅgan											
19.	Raṅgpur											*
20.	Lothal					*						

* indicates the presence of the symbol in the concerned site.

Sl.No.	Serial No. of the Vallam Graffiti											
1.	12	13-14	15	16	17	18-20	21	22	23	24	25	26
2.		16			17	11		30				
3.								*				
4.												
5.		*			*	*						
6.	*	*	*		*	*	*		*			*
7.	*											
8.					*							
9.		*										
10.		*				*		*				
11.							*	*				
12.					*	*						
13.												
14.												
15.												

S.No.	Serial No. of the Vallam Graffiti											
	12	13-14	15	16	17	18-20	21	22	23	24	25	26
16.							*					
17.						*	*					
18.								*				
19.		*			*							
20.		*					*					

Sl.No.	Serial No. of the Vallam Graffiti										
1.	27	28-30	31	32	33-40	41	42	43	44	45	46	47
2.		15		15				13				
3.												
4.												
5.		*										
6.					*							
7.												
8.												
9.		*										
10.		*										
11.		*			*			*				*
12.												
13.		*										
14.		*		*								
15.		*										

Sl.No.	Serial No. of the Vallam Graffiti											
	27	28-30	31	32	33-40	41	42	43	44	45	46	47
16.												
17.												
18.		*		*				*				
19.		*		*								
20.		*										

Sl.No.	Serial No. of the Vallam Graffiti											
1.	48-50	51	52	53	54-55	56	57	58	59	60	61	62
2.	32										20	
3.	*											
4.	*											
5.	*										*	
6.	*				*							
7.											*	
8.												
9.												
10.	*										*	
11.			*									
12.												
13.												
14.												
15.												

Sl.No.	Serial No. of the Vallam Graffiti											
	48-50	51	52	53	54-55	56	57	58	59	60	61	62
16.												
17.	*											
18.	*											
19.	*										*	
20.												

Sl.No.	Serial No. of the Vallam Graffiti							
1.	63	64	65	66	67	68	69	
2.				34			45	
3.								
4.								
5.								
6.				*				
7.				*			*	
8.								
9.								
10.								
11.								
12.				*				
13.								
14.								
15.								

Sl. No.	Serial No. of the Vallam Graffiti						
	63	64	65	66	67	68	69
16.							
17.							
18.				*			*
19.							
20.							

VII. ANTIQUITIES

Among the finds other than the pottery three categories of objects deserve mentioning. They are bone and iron objects and beads. As mentioned above bone objects are mostly confined to period I-A and early part of period I-B. It seems that iron which became popular from period I-B made superfluous the use of bone for making tools.

The bone objects consist of mainly arrowheads and points or awls.

No. in Fig.27	Trench	Period	Description
1	VLM-1	I-A	Arrowhead
2	VLM-1	I-B	Arrowhead
3-5	VLM-1	I-B	Points
6	VLM-2	I-A	Point
7 & 9	VLM-1	I-B	Broken point or arrowhead
8	VLM-1	I-A	-do-
10-12	VLM-2	I-B	-do-

Iron Objects:

A single arrowhead comes from the last part of period I-A. Most of the other objects are nails. Some of them cannot be identified as they are much defaced due to heavy encrustation. An object looks like a chisel.

No. in Fig.28	Trench	Period	Description
1.	VLM-1	II	Wedge ?
2	VLM-1	I-B	nail
3-5	VLM-3	III	nail
6	VLM-2	I-B	nail
7-8	VLM-1	III	nail
9	VLM-1	II	nail

10	VLM-1	I-B	Chisel ?
11	VLM-1	II	nail
12	VLM-1	III	nail
13	VLM-2	III	nail
14	VLM-1	I-B	nail
15	VLM-2	I-B	nail
16	VLM-1	I-A	arrowhead
17	VLM-1	I-B	nail
18	VLM-1	II	chisel
19	VLM-1	I-B	?

BEADS

Only a few beads were found starting from period I-B. They are made either of paste or of terracotta. The small number of beads may be attributed to the nature of the site which must have been used mainly as a garrison point.

No. in Fig.29	Trench	Period	Description
1	VLM-3	II	Terracotta. Barrel, elliptical, collared, centrally grooved.
2	VLM-3	II	Terracotta. Pear-shaped.
3	VLM-1	I-B	Terracotta. Pear-shaped.
4	VLM-3	II	Terracotta. Barrel-shaped.
5	VLM-1	II	Terracotta. Short, oblate, circular.
6	VLM-2	II	Paste. Short, oblate, circular.
7	VLM-3	II	Paste. Long cylindrical, circular.
8	VLM-1	I-B	Paste. Long barrel, elliptical.

9	VLM-1	III	Paste. Short barrel.
10	VLM-3	II	Paste. Short oblate, circular.
11	VLM-2	I-B	-do-
12	VLM-3	II	-do-
13	VLM-3	II	-do-

APPENDIX-I

Resistivity Survey

A small-scale Resistivity Survey was made at Vallam with the kind cooperation of the Ground Water Cell, Public Works Department of the Government of Tamil Nadu, Thanjavur Division. It was undertaken to fix up for excavation a small spot with a high resistivity when compared to the surrounding area. For this a rough square of 35 m. side was chosen on the flat ground close to the ridge in the southern part of the fort and was divided into four quadrants (Fig.30). The test was carried out at the four corners, at the middle points of the four sides and at the centre of the square at different depths up to a depth of 6 metres. Also along the diagonals from the centre of the square, readings were taken at two-metre intervals.

Method (Fig.31)

The Geolog 2000 D.C. resistivity meter manufactured by Oriental Electronics, Hyderabad, India, operated by means of 1.5 dry cells wenner electrode configuration, was used for the survey, in which the interval between any two adjacent electrodes is equal.

Two mild steel electrodes for current (C_1 and C_2) and two non-polarisable electrodes (P_1 and P_2) of copper rods dipped in coppersulphate solution in a porous pot for potential are employed. Without impressing a current through the current electrodes C_1 and C_2, the existing self-potential between the potential electrodes is balanced out. Current is then passed between the current electrodes C_1 and C_2 by using external D.C. power pack. The potential difference between the potential electrodes is then measured by balancing against the potentiometer so as the display-II should indicate the same reading as in display-I. The resistance (R) is directly obtained in the potentiometer.

The apparant resistivity (P) is calculated by using the formula $P_a = 2\pi a R$.

R = resistance for the electrode separation of 'a'.

a = electrode separation (distance between the two electrodes).

P = apparent resisitivity for the electrode seperation 'a'.

Finding

It was found out that the resistivity of the soil in the south-eastern quadrant of the square under test was somewhat more than that in the other quadrants. Therefore the first trench (VLM-1) was put here. Even though this trench yielded a fairly good cultural deposit, it is difficult to say whether this particular spot was rather unique, unless one or two other comparable trenches are put on the adjoining quadrants also.

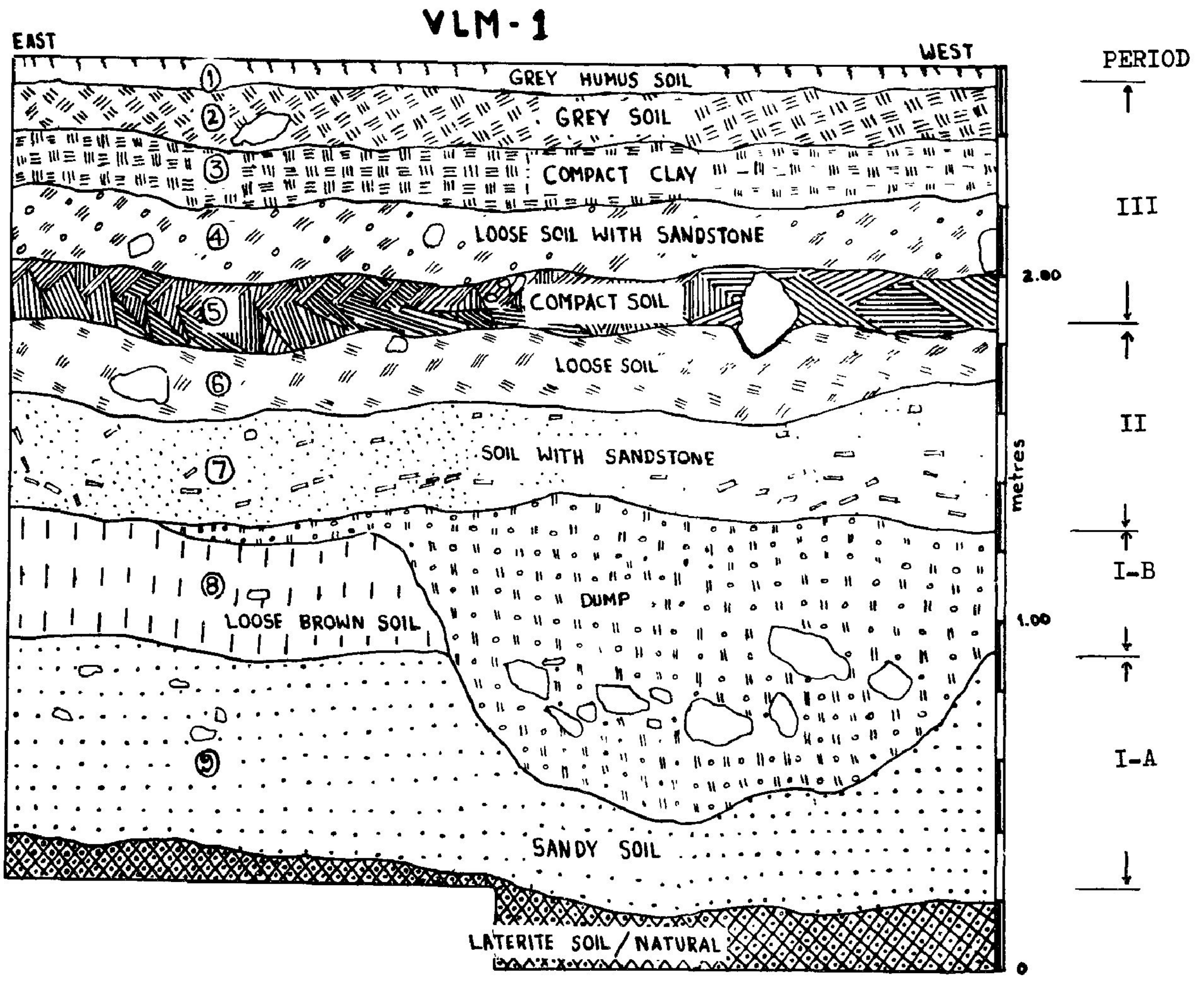


Fig. A Southern section in VLM-1

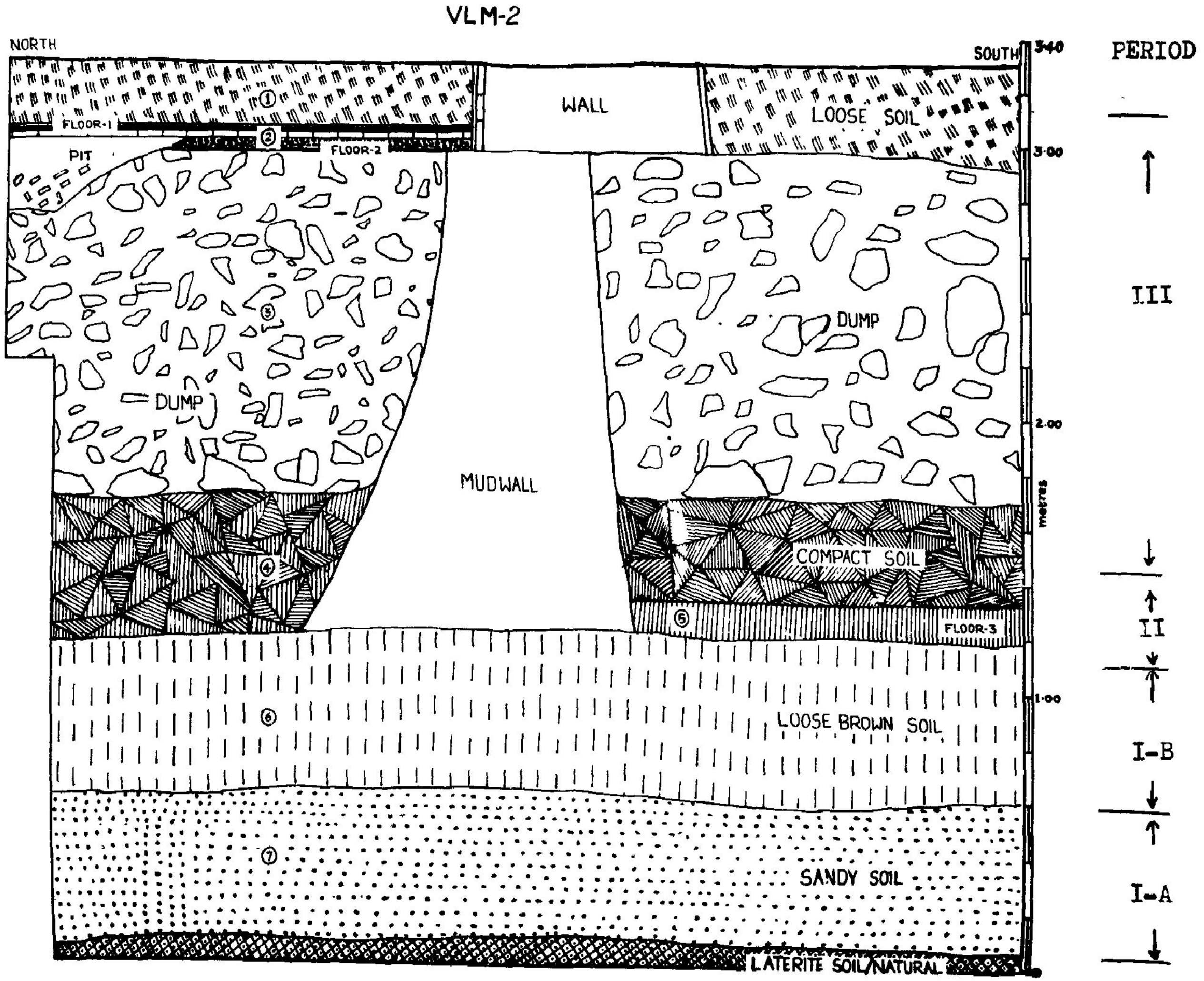


Fig. B Eastern section in VLM-2

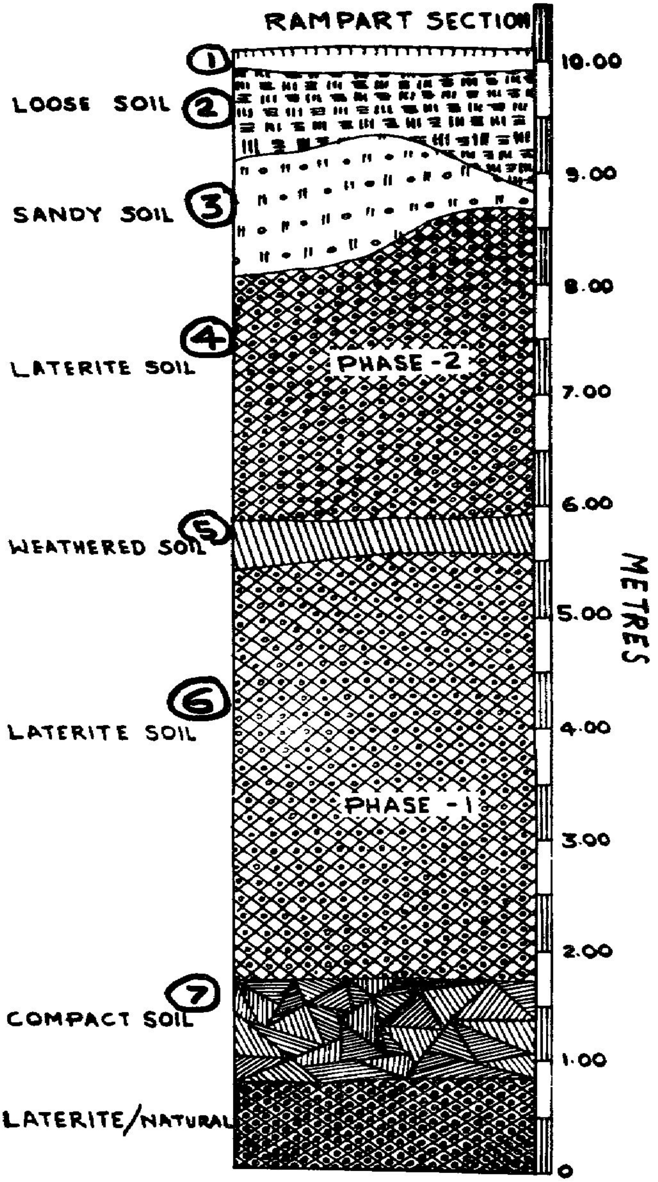


Fig. C Southern section in VLM-3

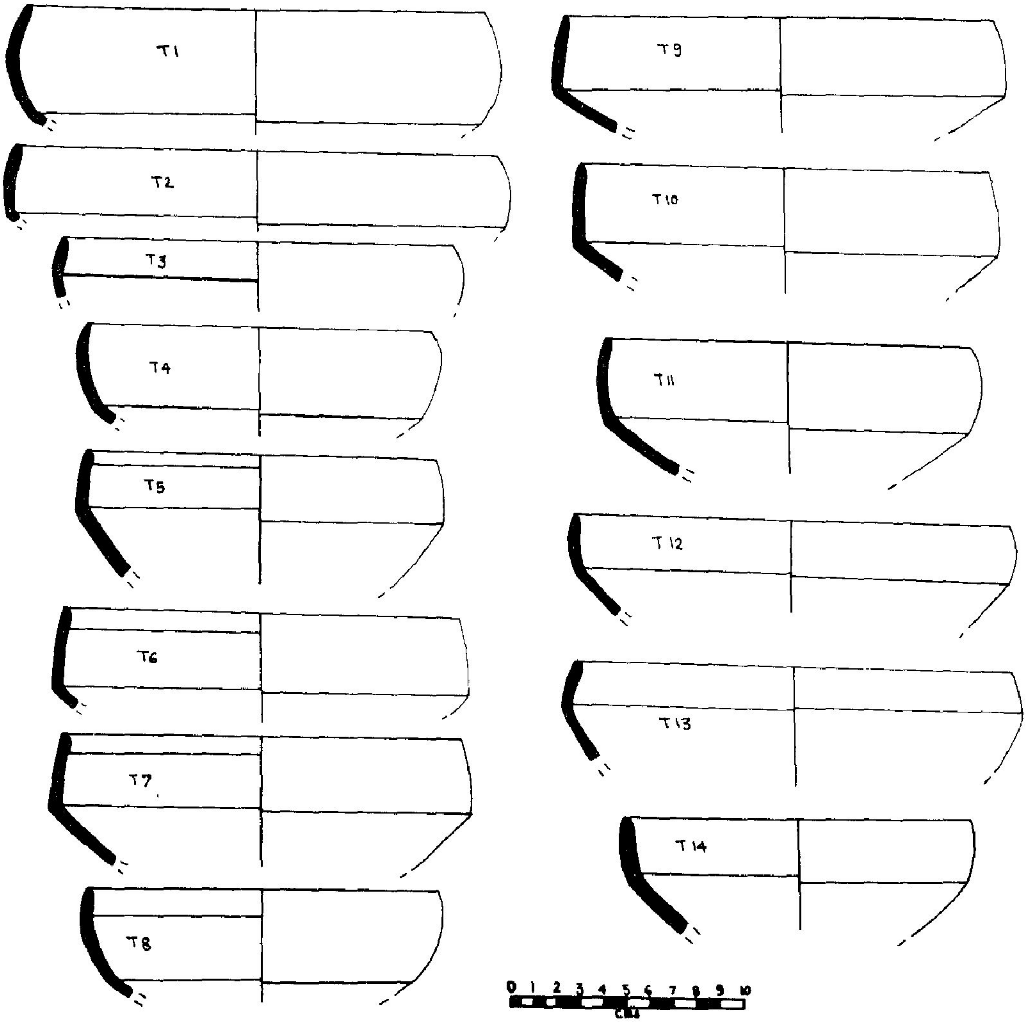


Fig. 1 Black-and-Red ware bowls

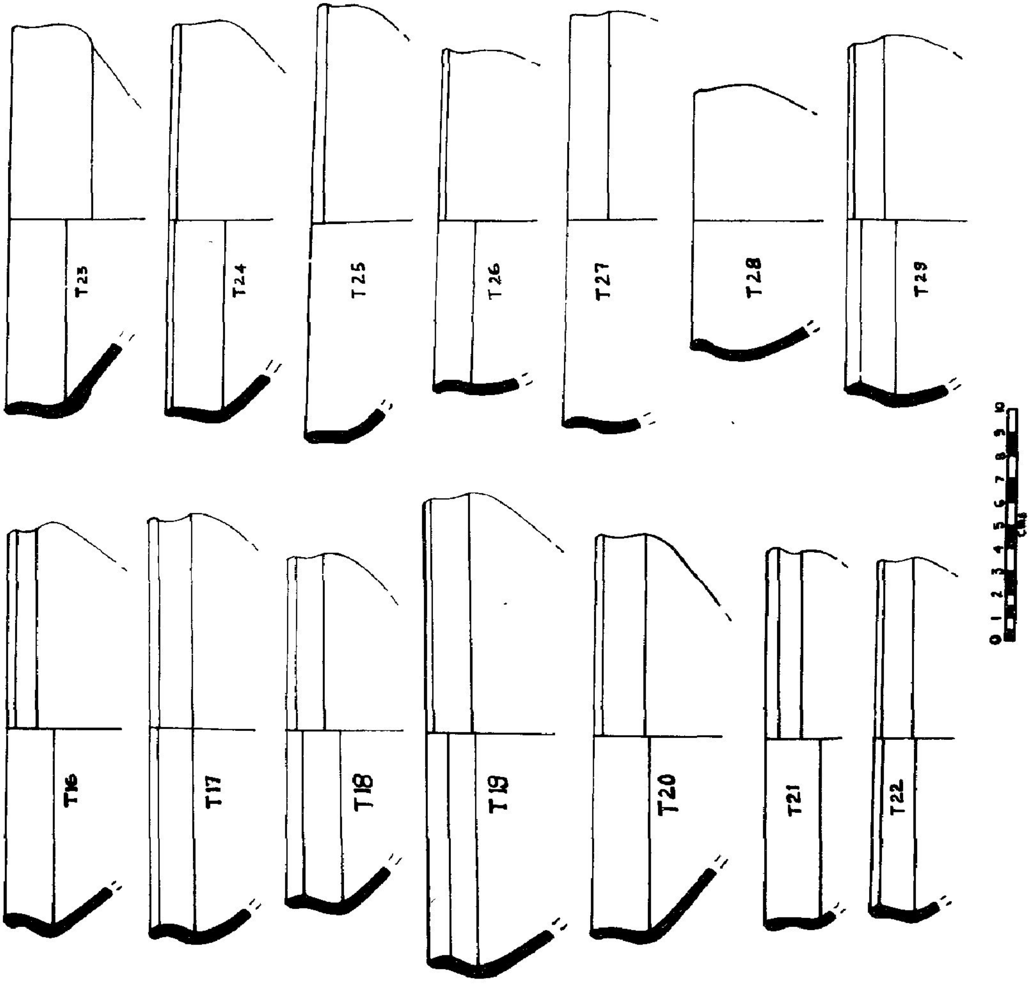


Fig. 2 Black-and-Red ware bowls

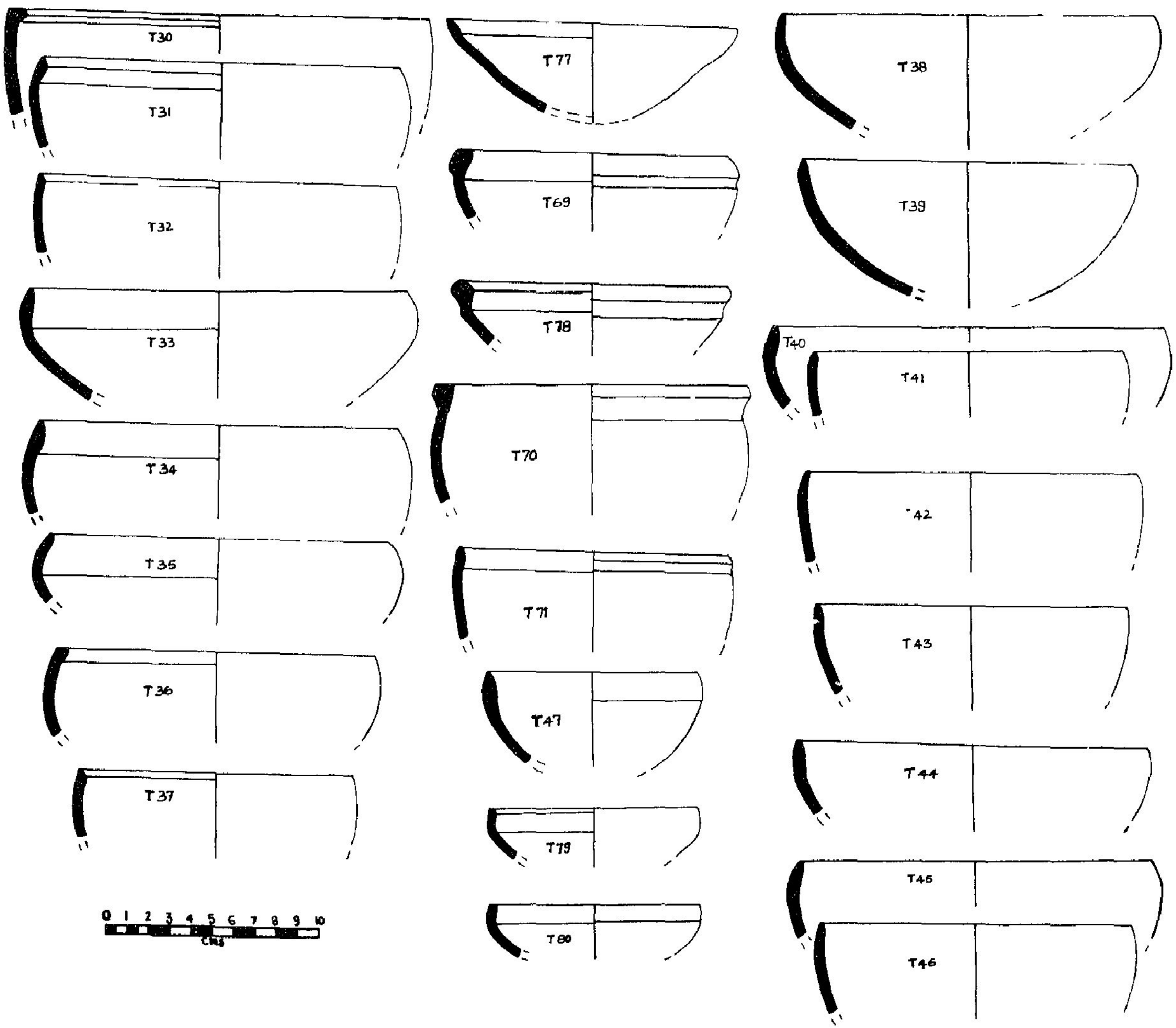


Fig. 3 Black-and-Red ware bowls, basins & dishes

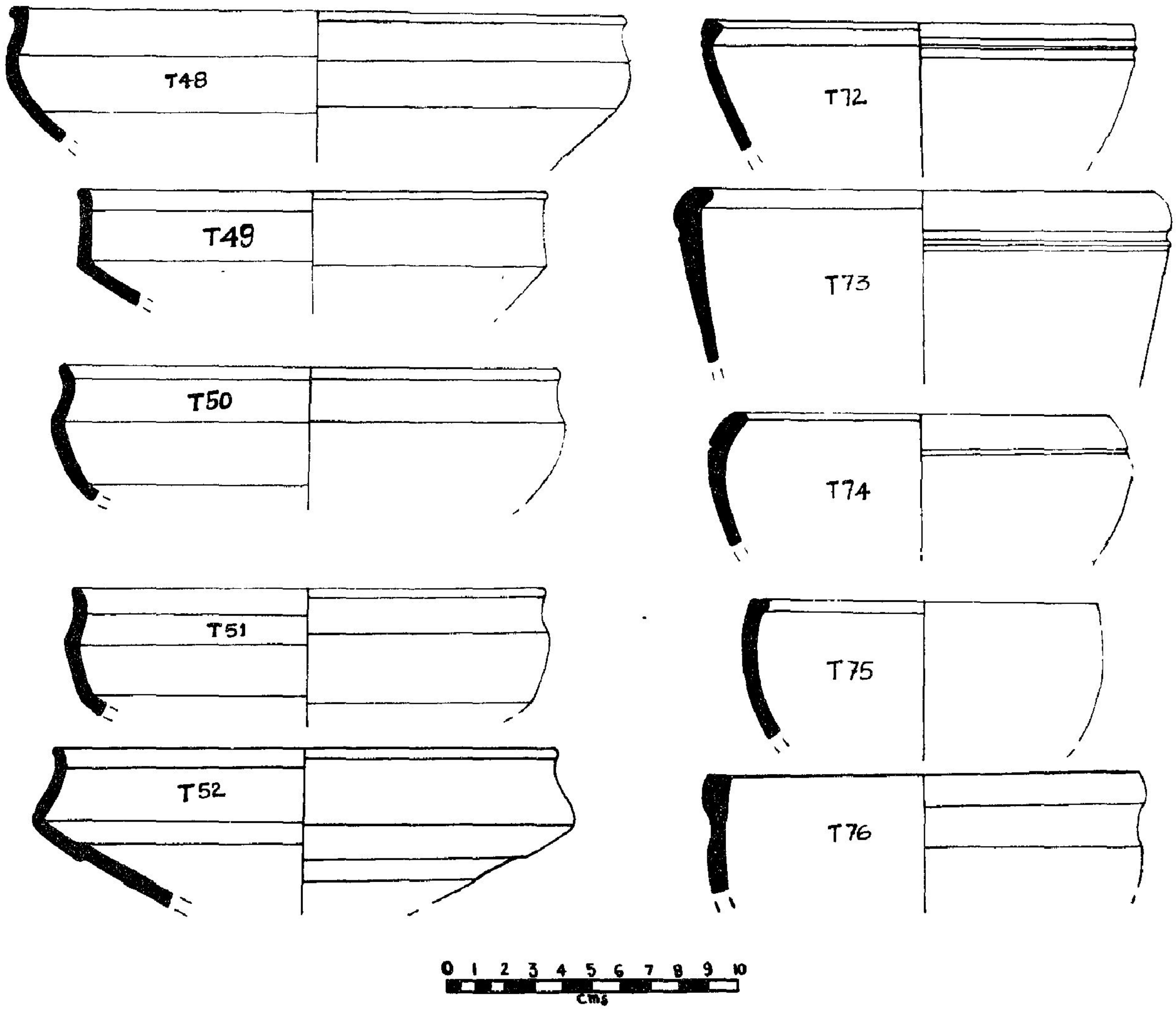


Fig. 4 Black-and-Red ware bowls & basins

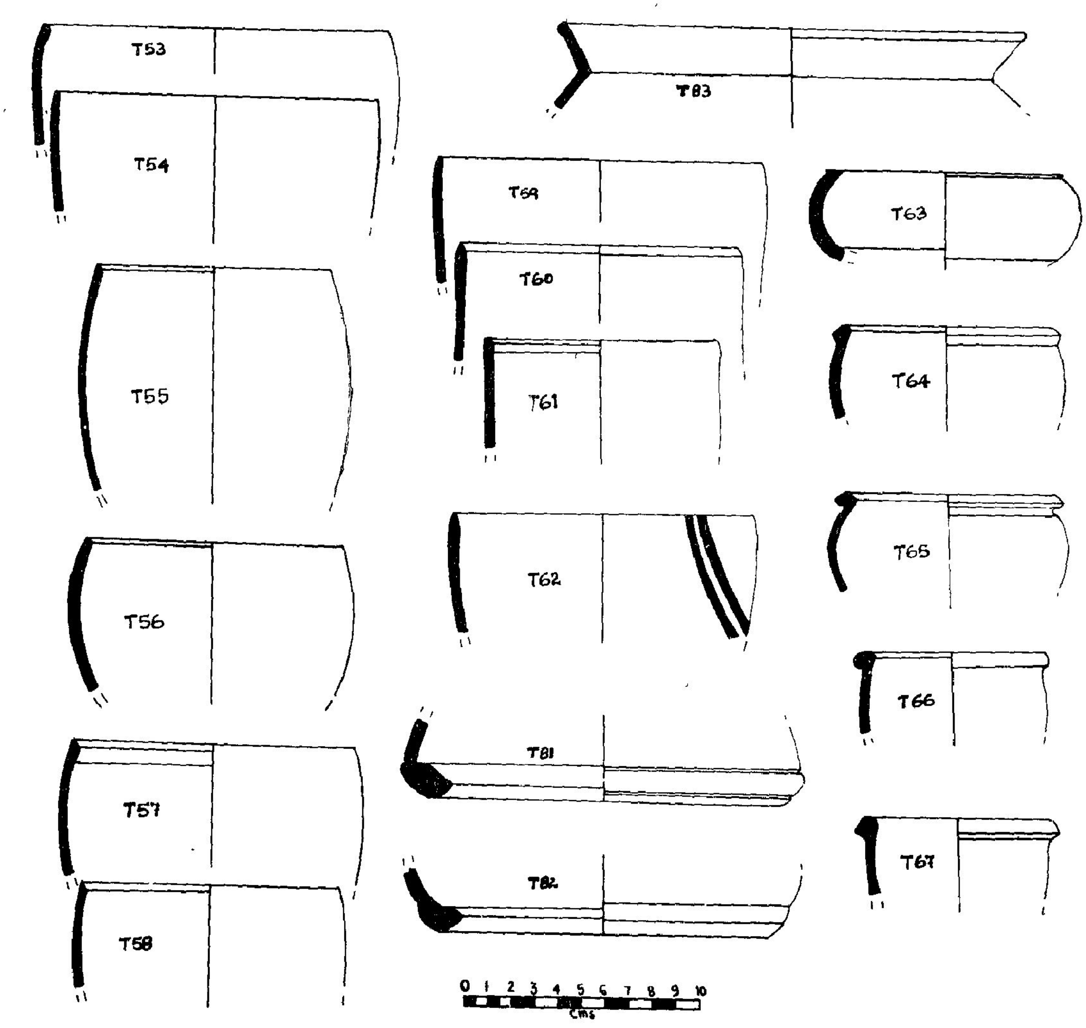
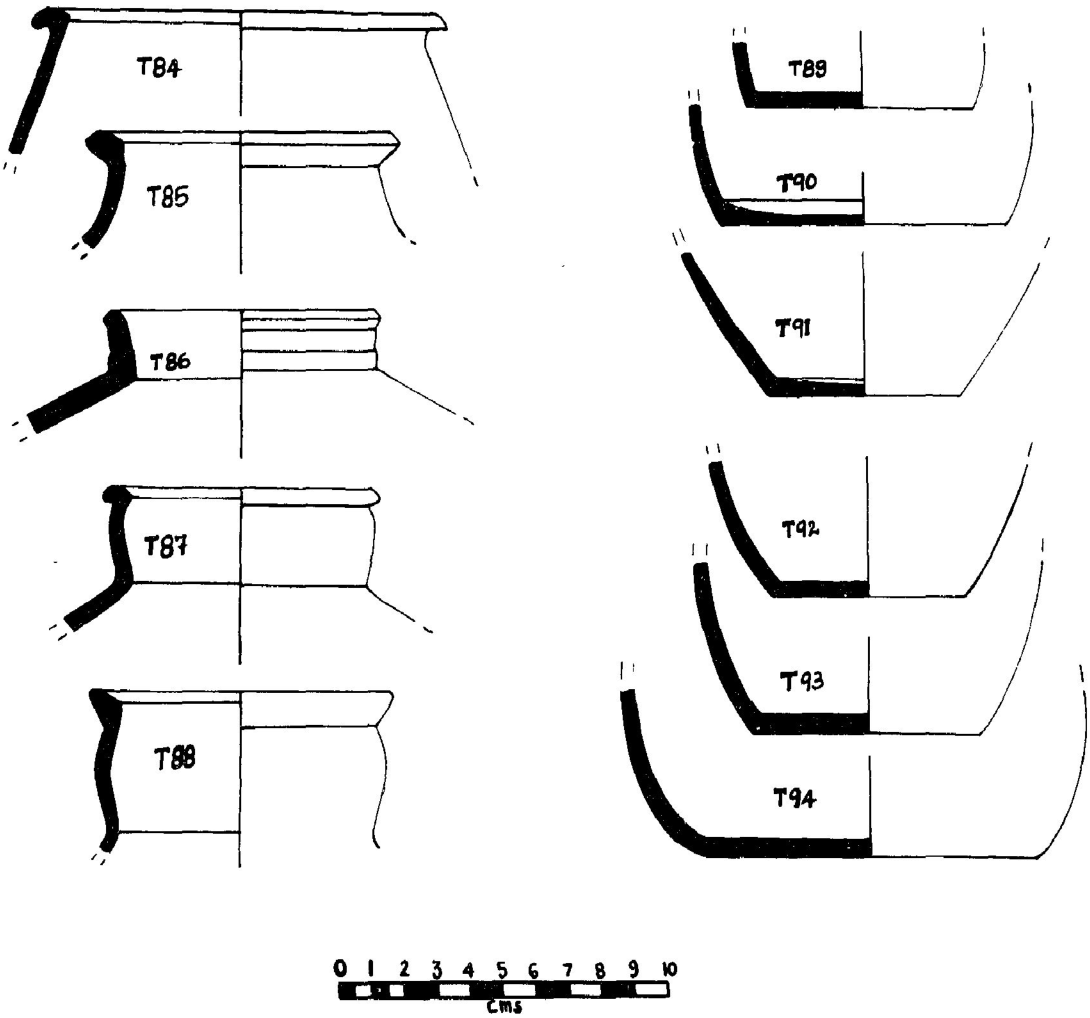


Fig. 5 Black-and-Red ware bowls, lids & jars



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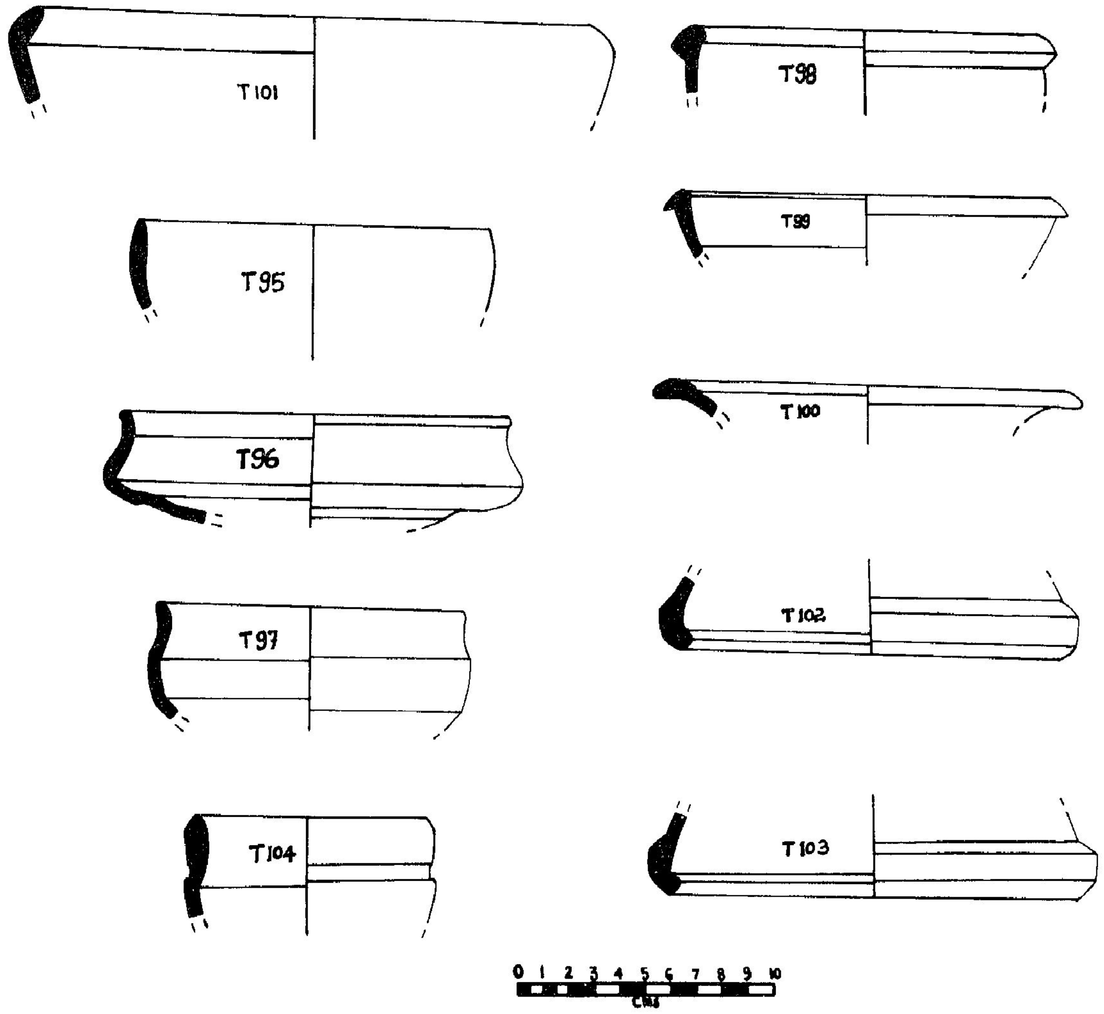


Fig. 7 Red Slipped ware bowls, lids & basin

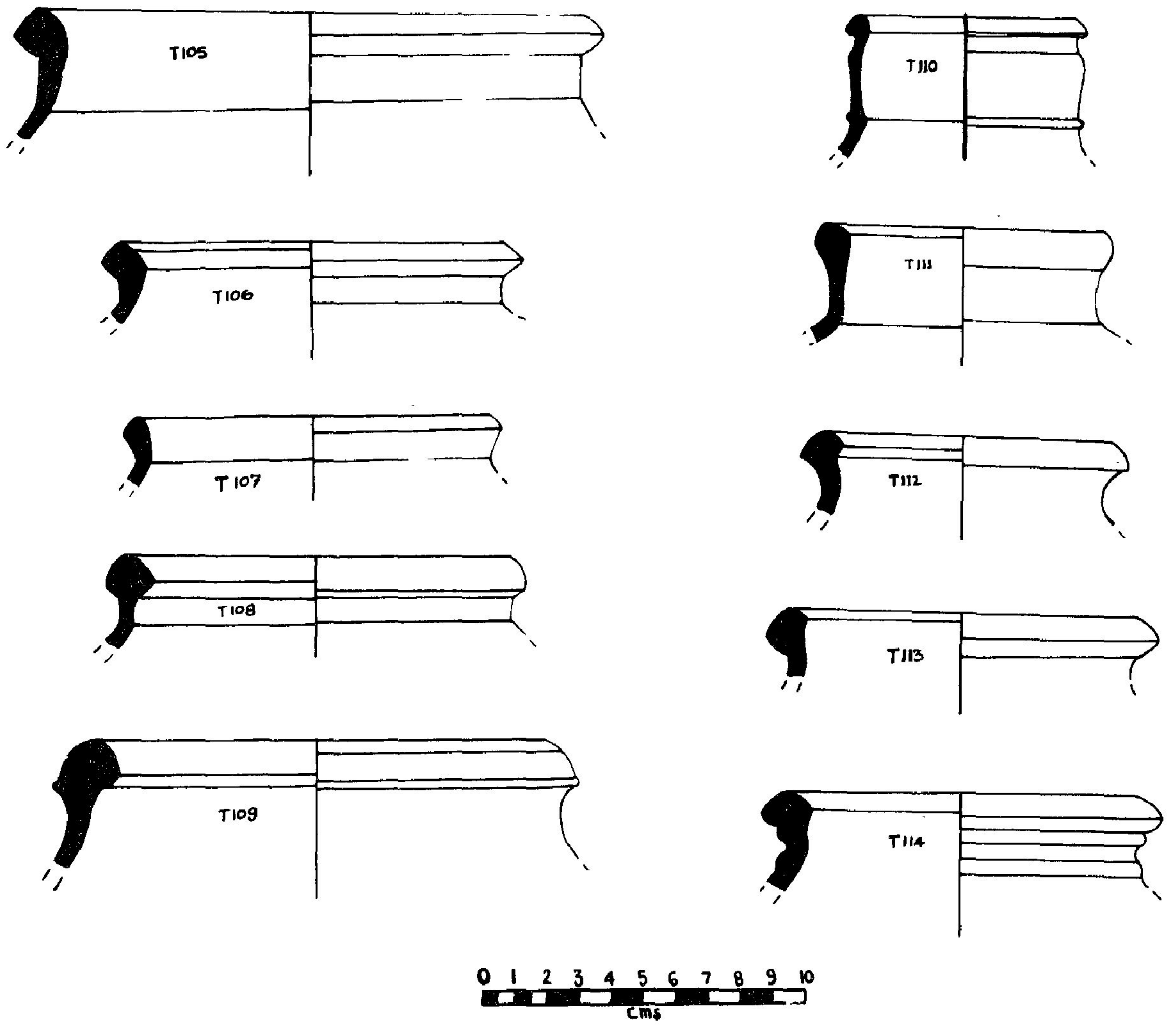


Fig. 8 Red Slipped ware vases

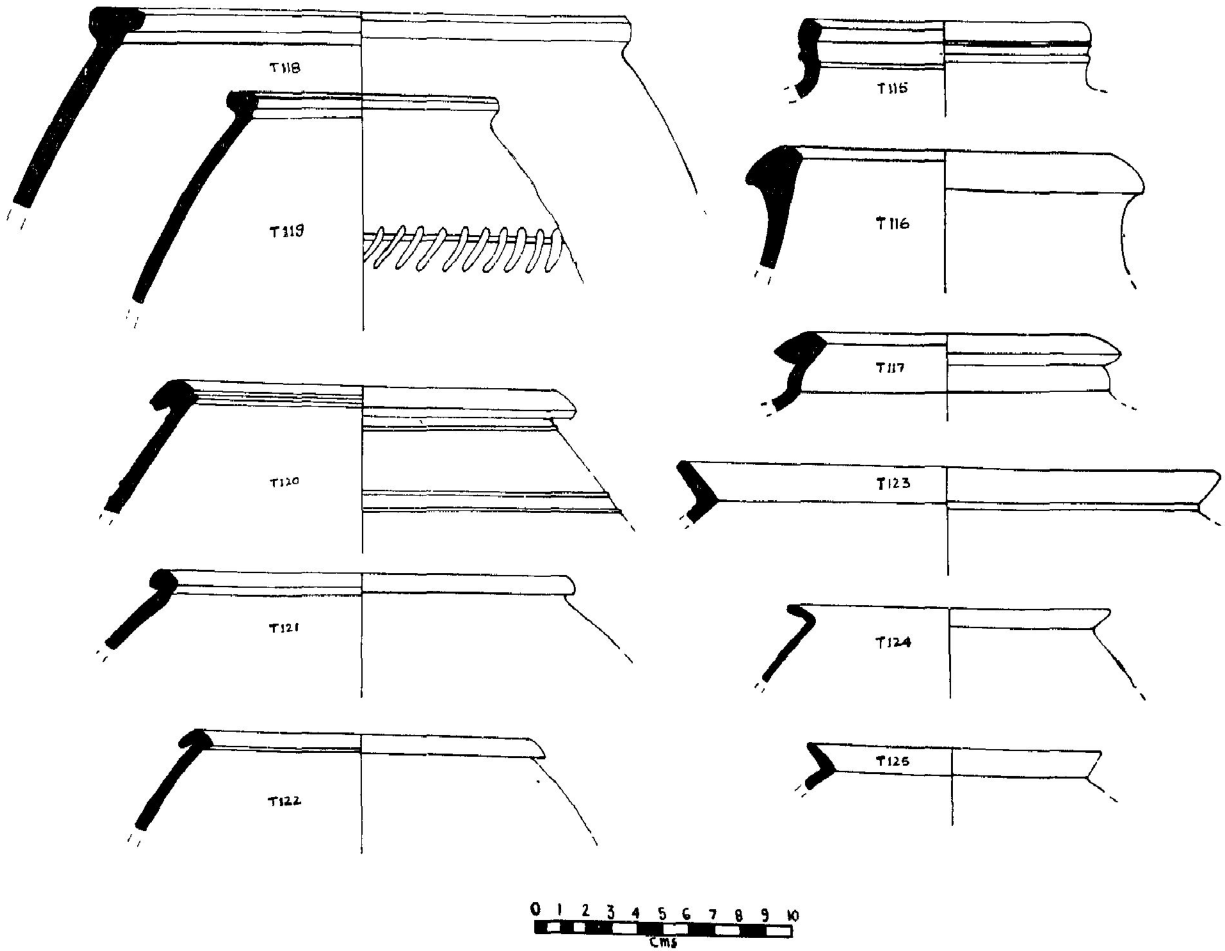


Fig. 9 Red Slipped ware vases and jars

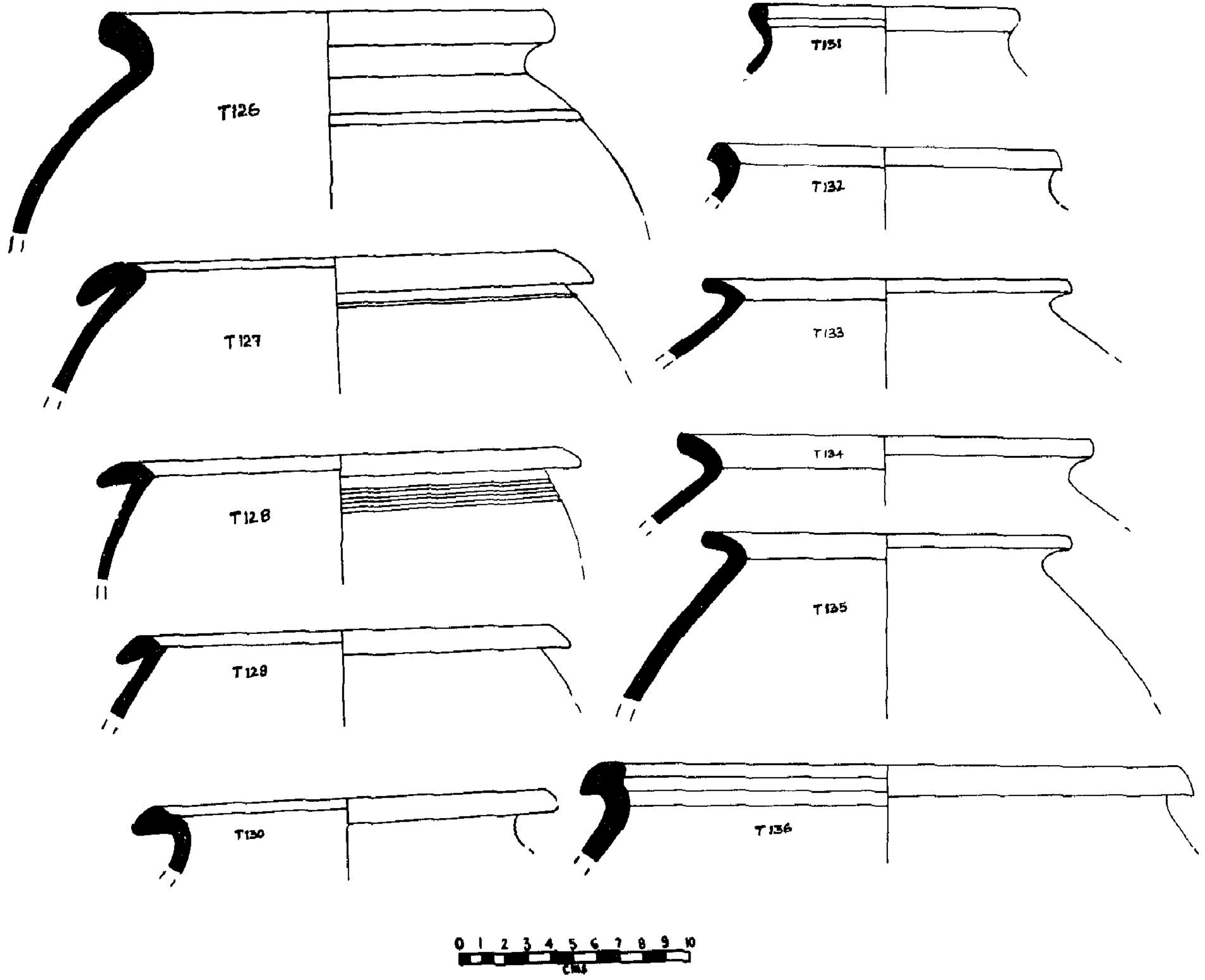


Fig.10 Red Slipped ware jars

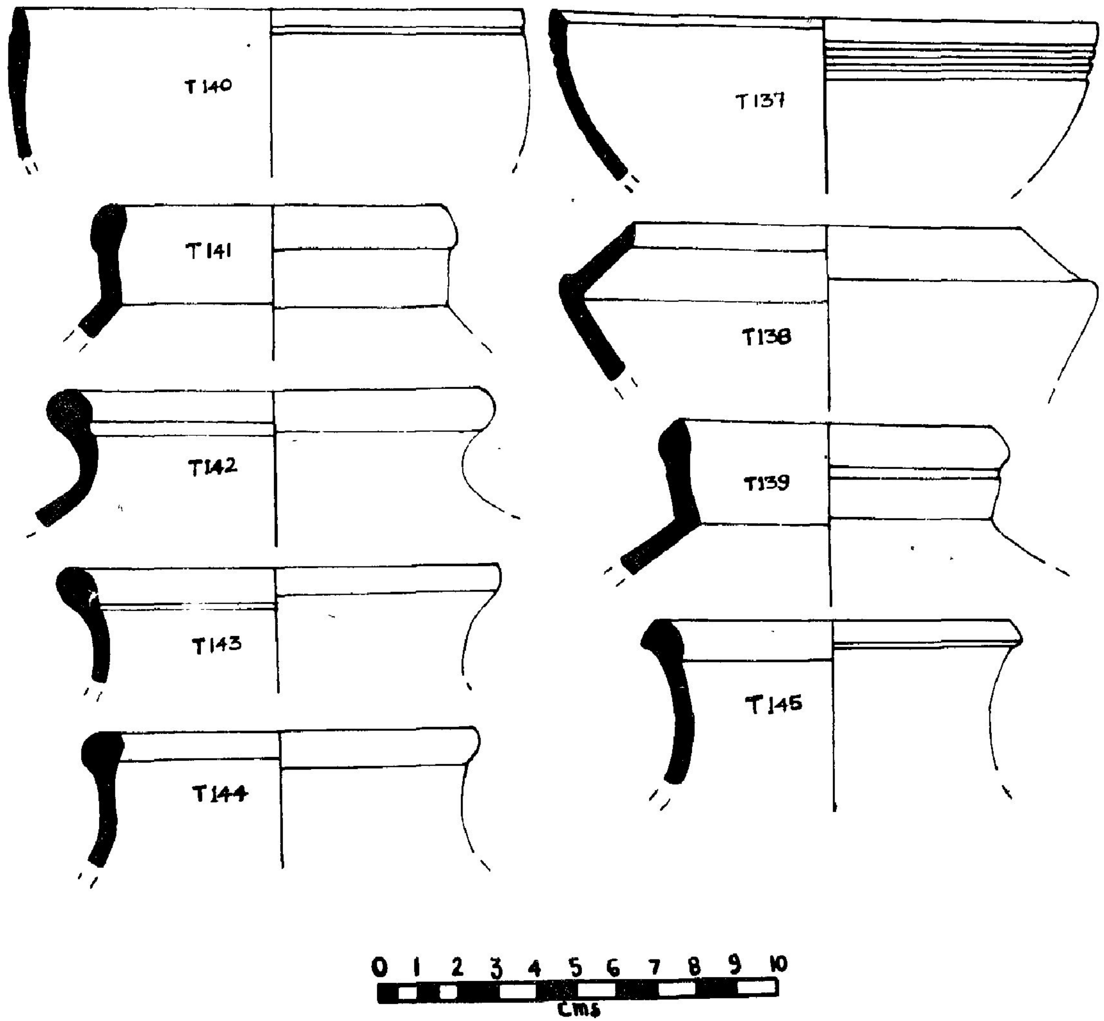


Fig.11 All Black ware bowls & vases

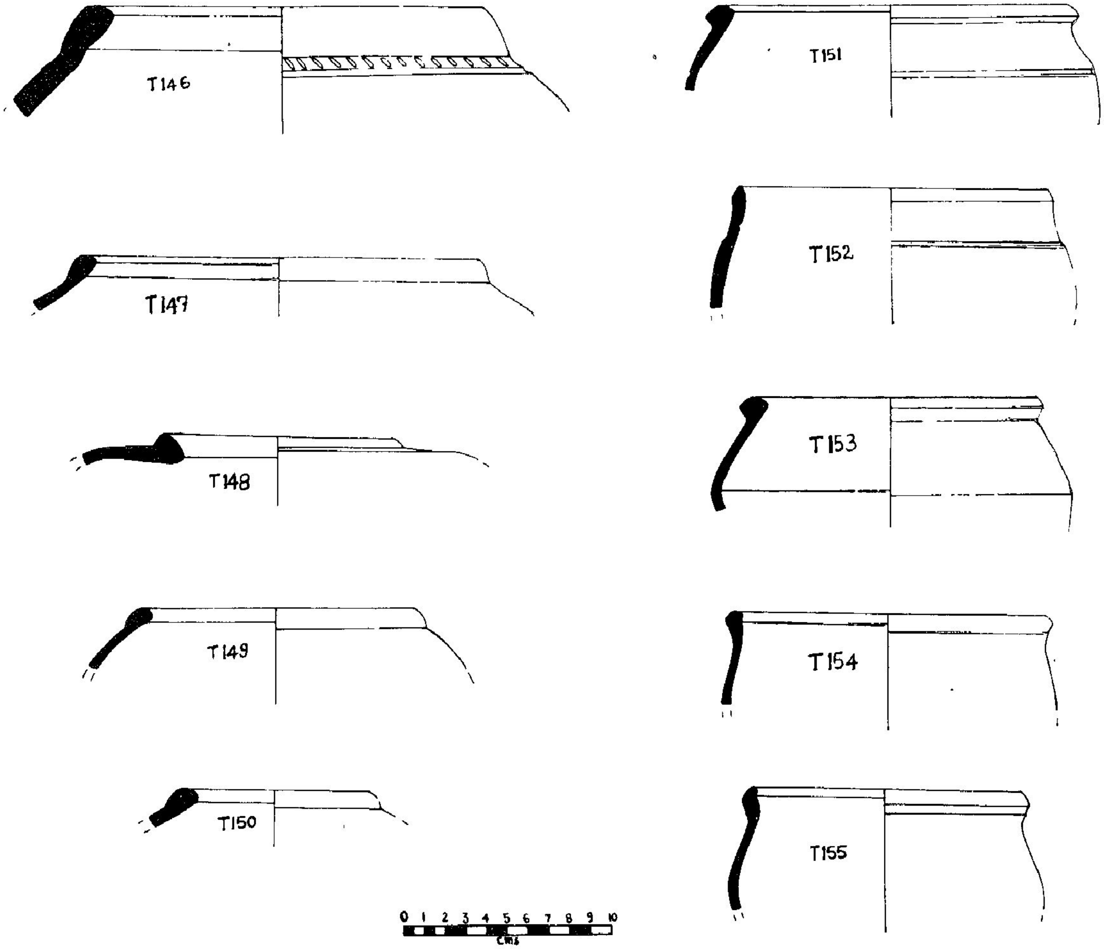


Fig. 12 All Black ware lid-cum-bowl (T.138-139) and Red ware jars & vessels

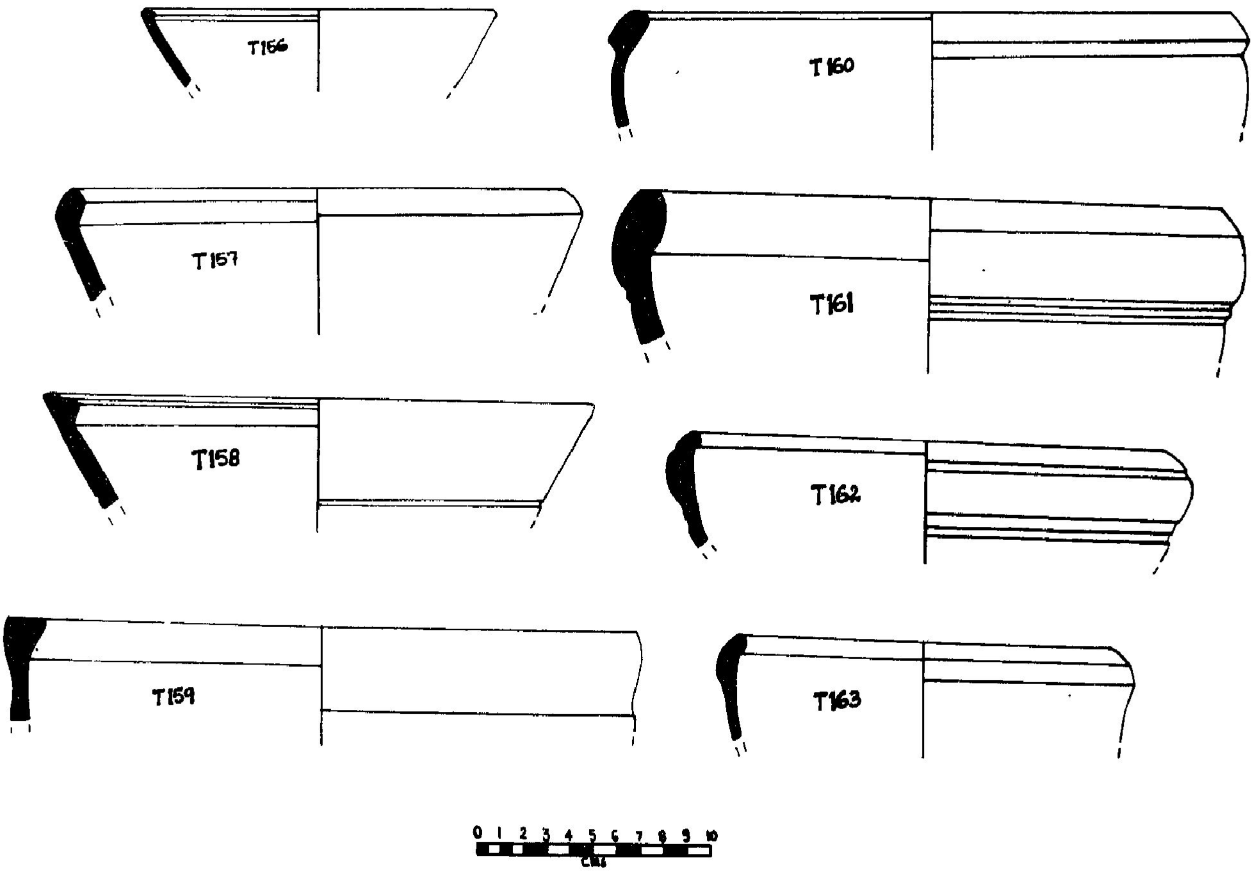


Fig. 13 Red ware basins

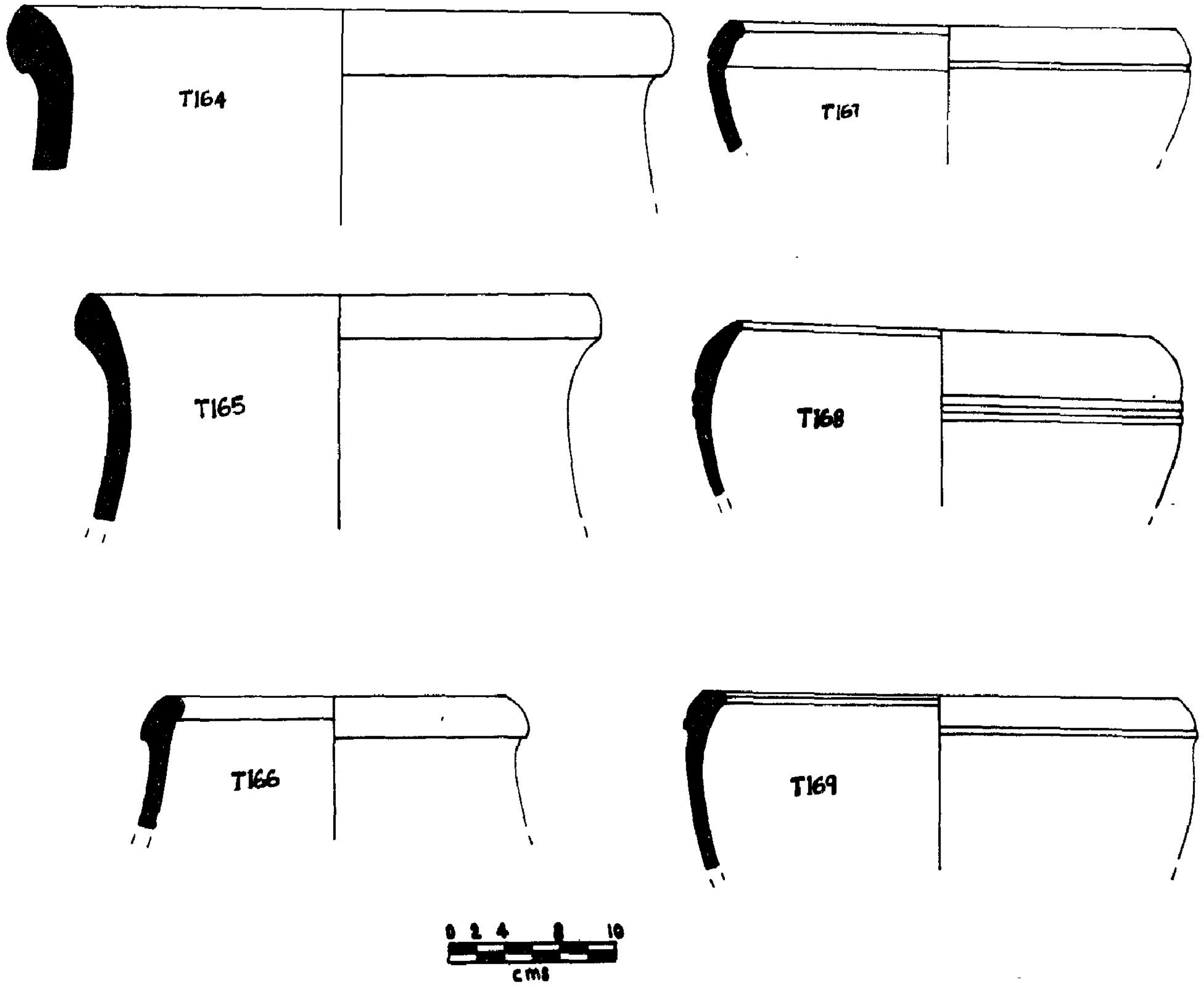


Fig. 14 Red ware basins

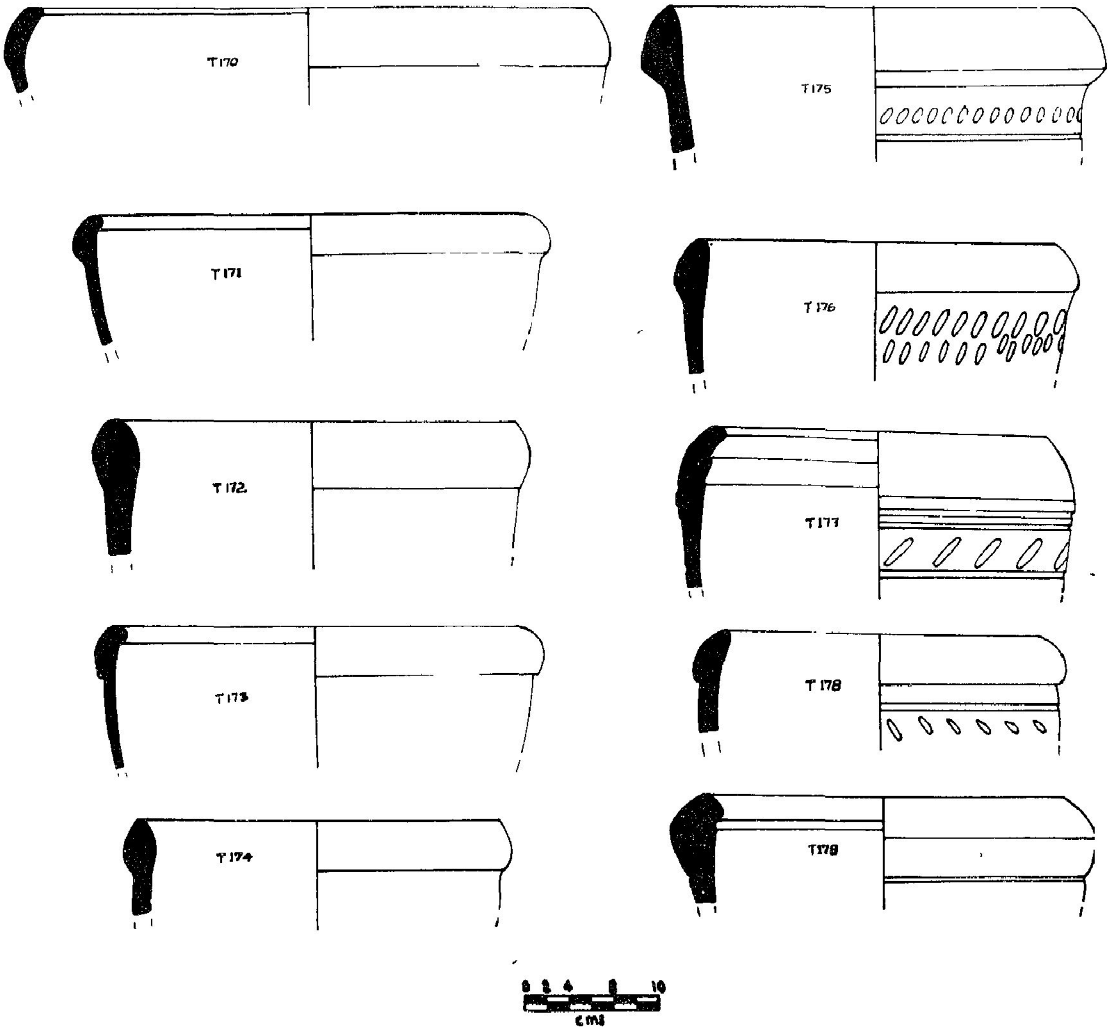
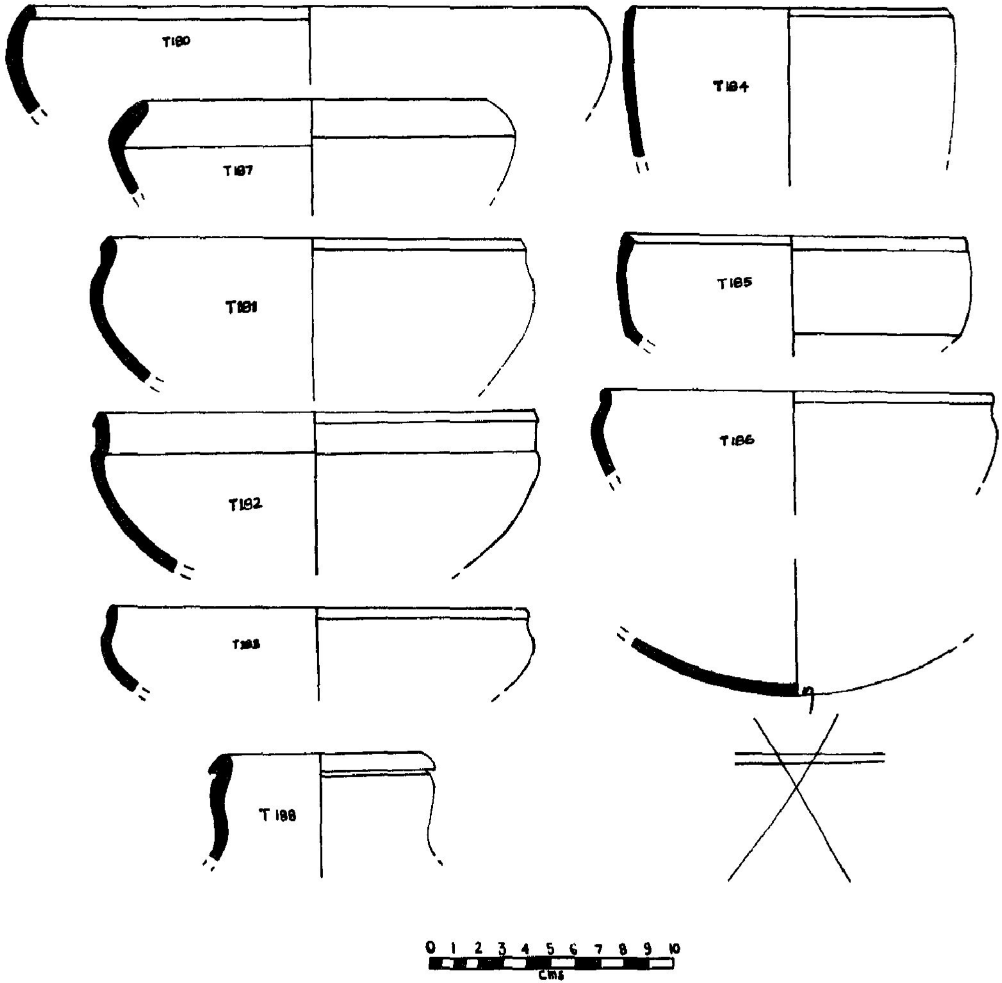


Fig. 15 Red ware basins



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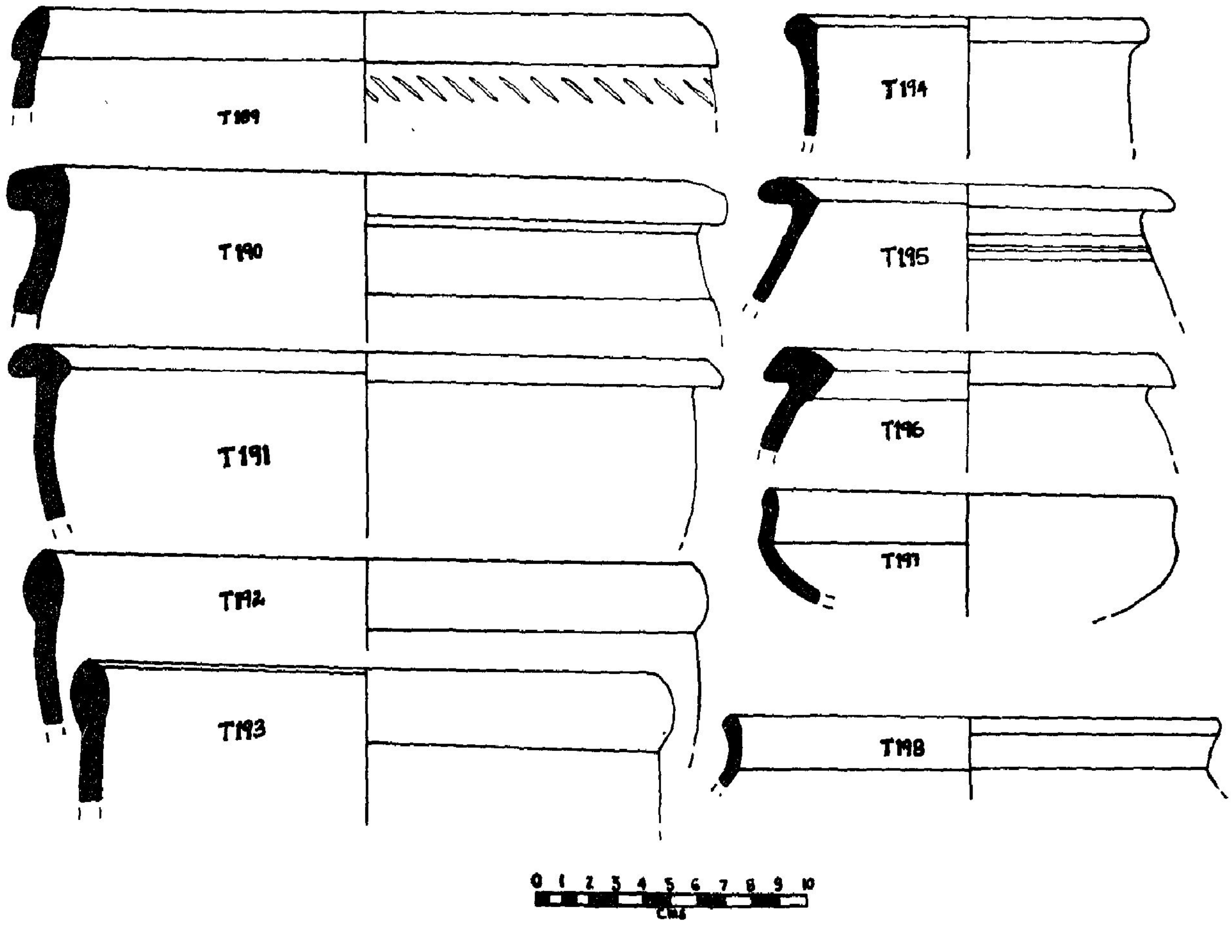


Fig. 17 Red Slipped ware basins, jars, bowl & vase

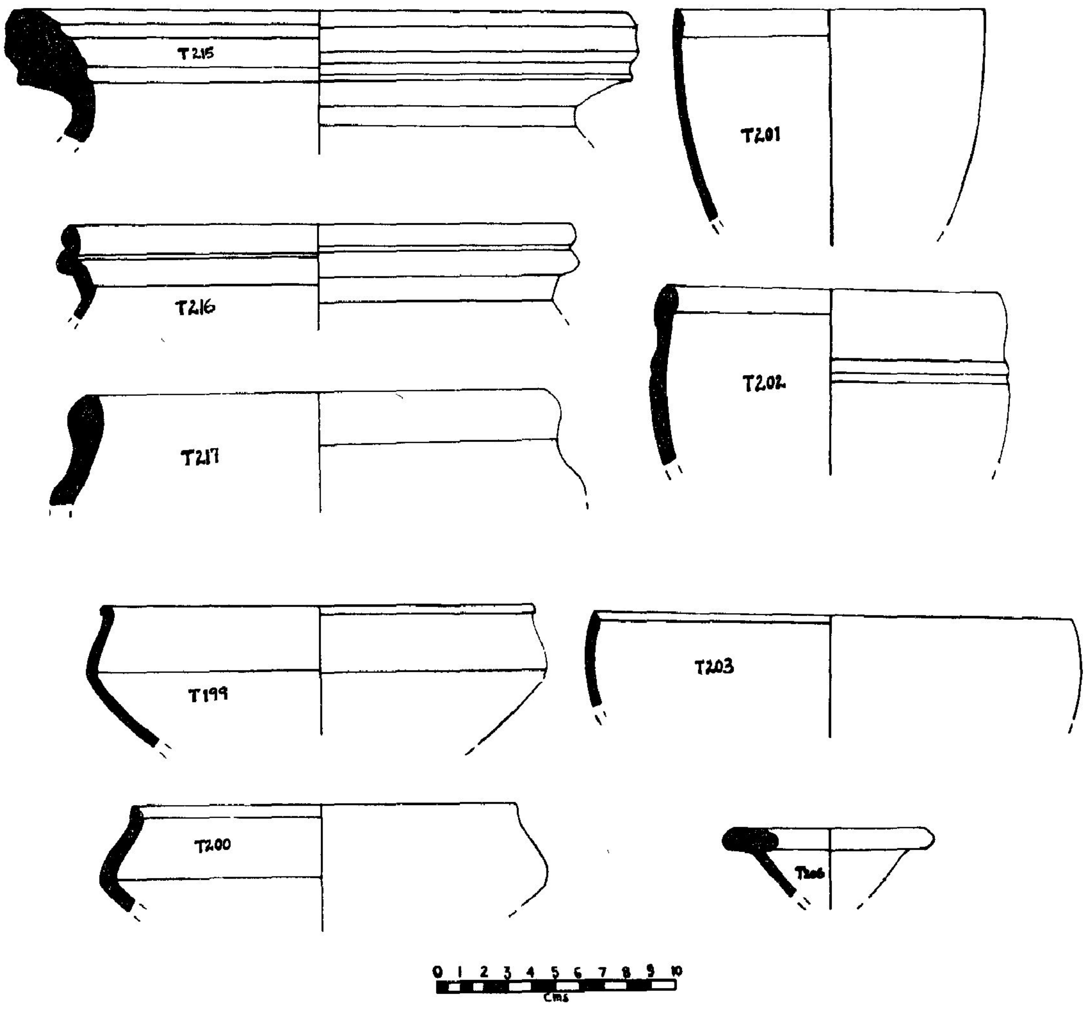
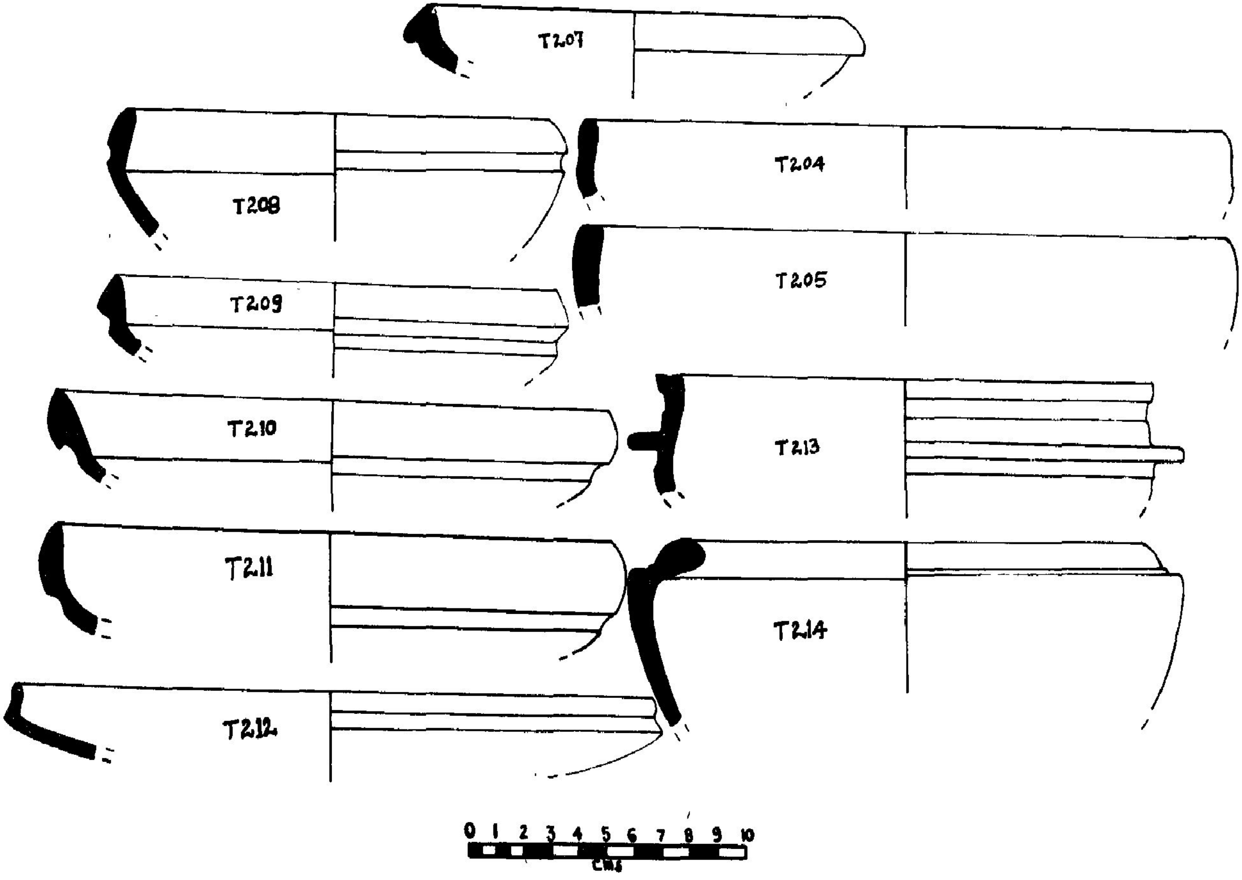


Fig. 18 Red ware bowls, lid & jars



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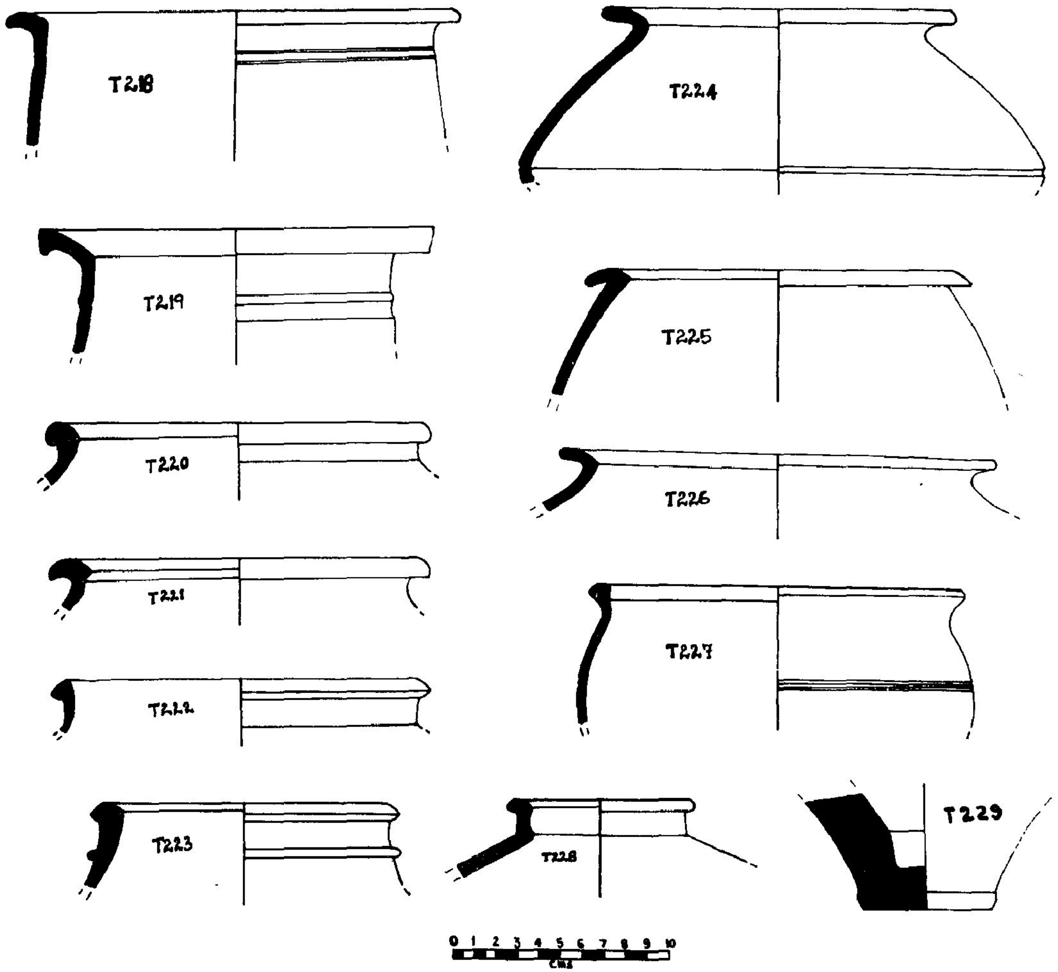


Fig. 20 Red ware jars

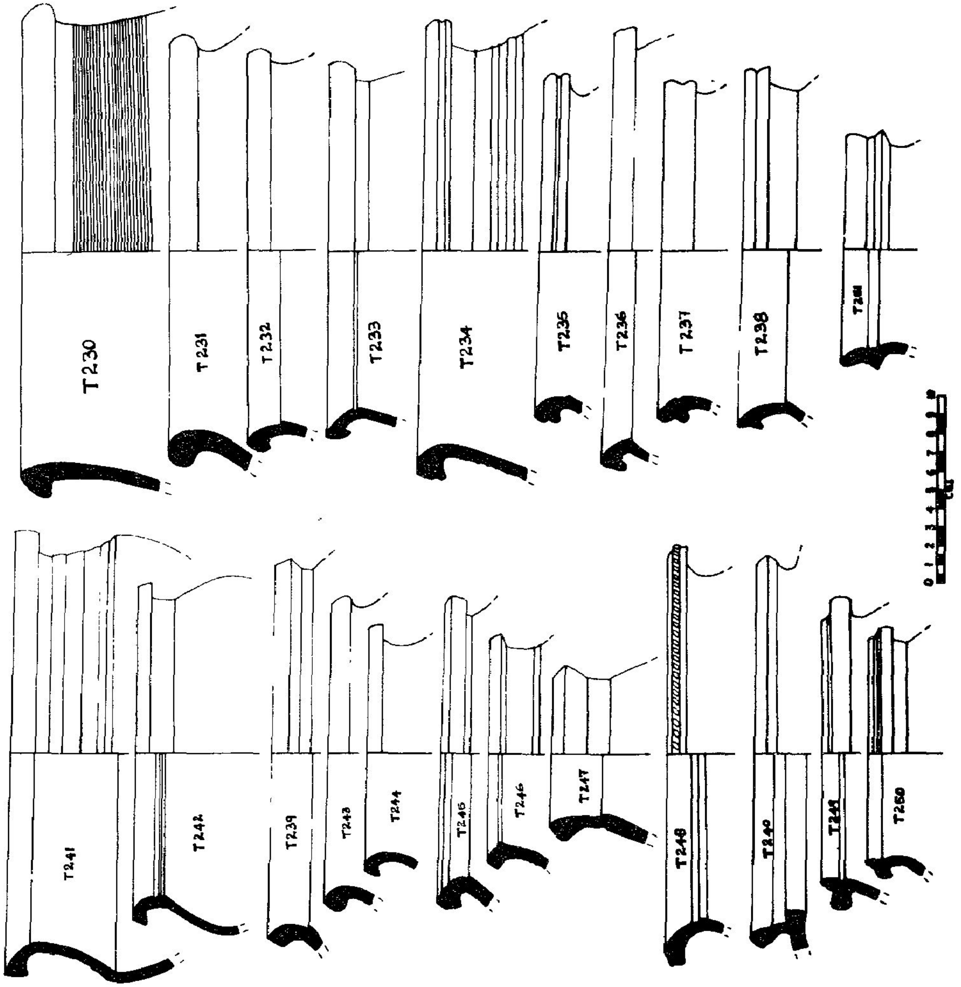


Fig. 21 Red ware jars & vases

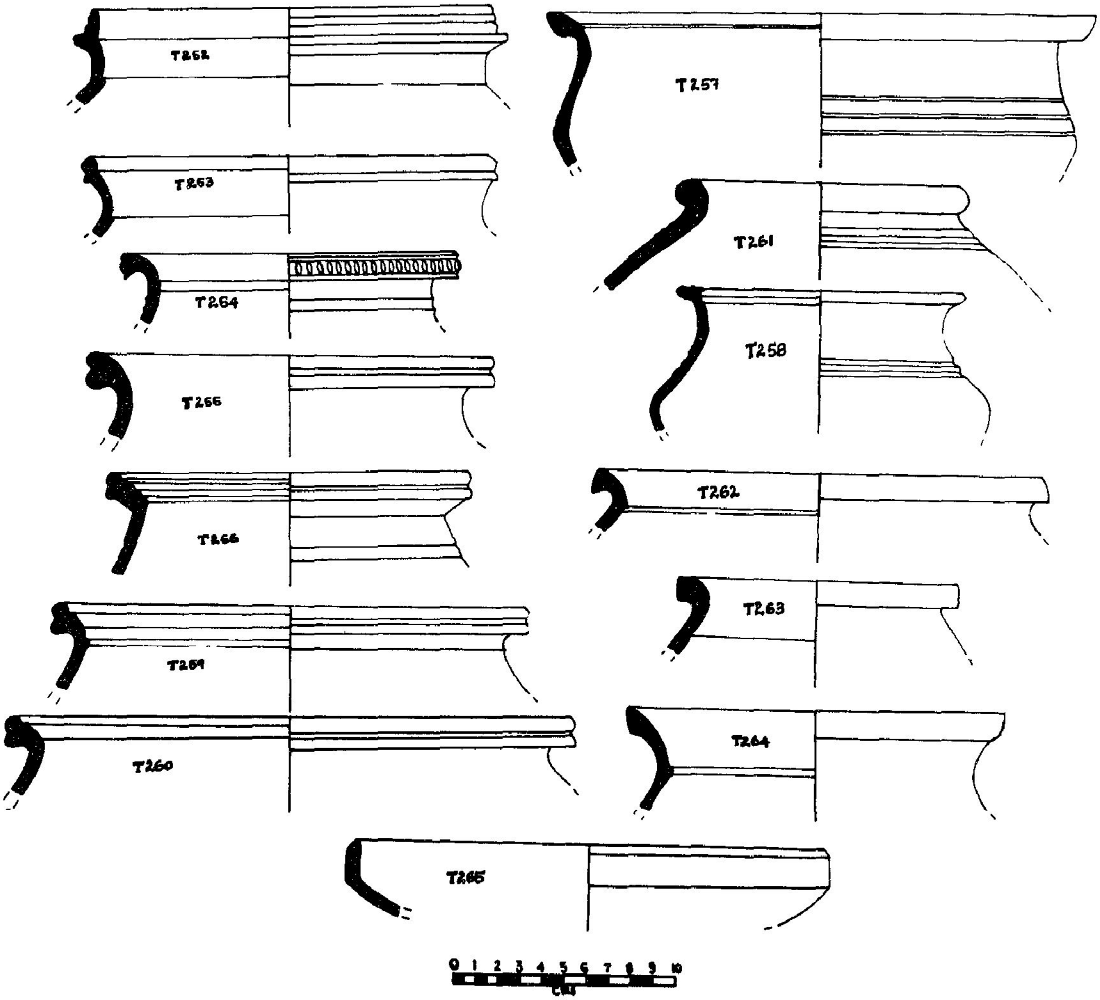


Fig. 22 Red ware vases, vessels, jars and bowl

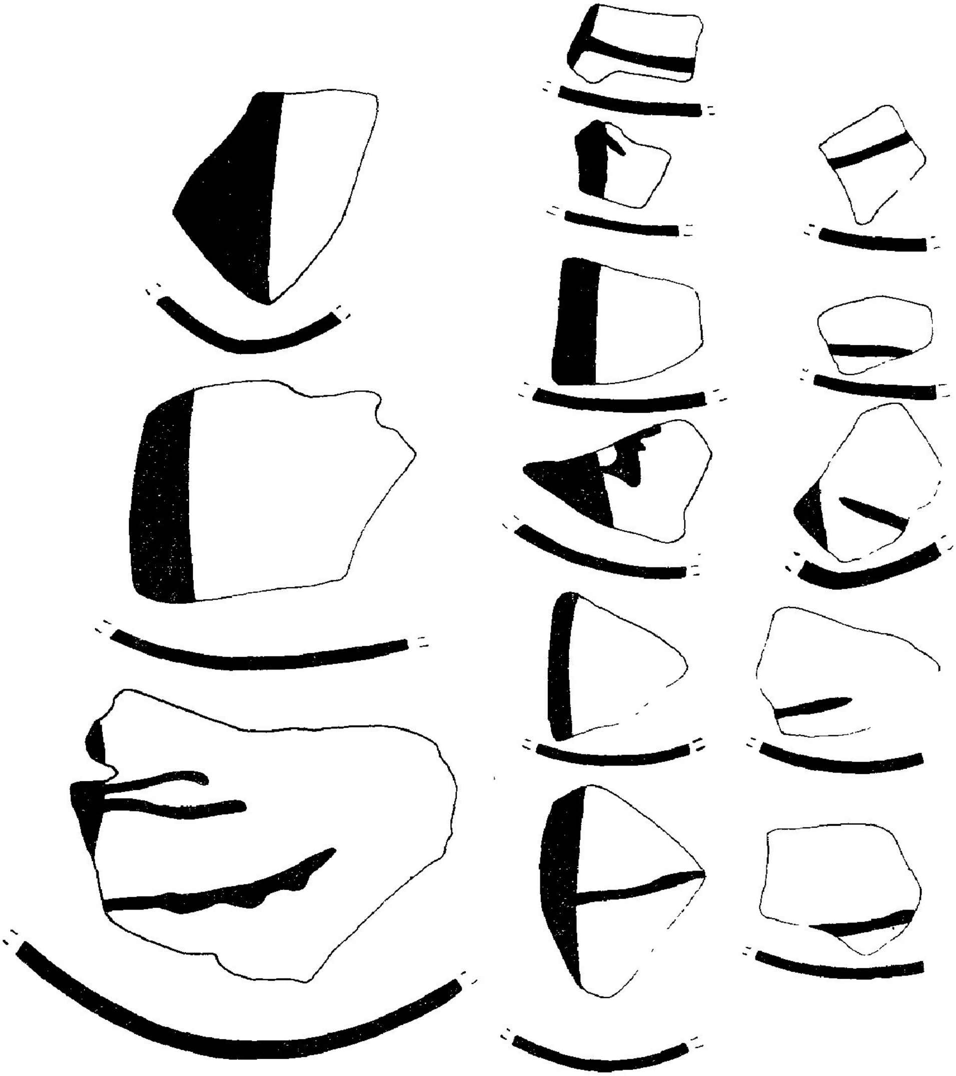


Fig. 23 Red-painted Red ware

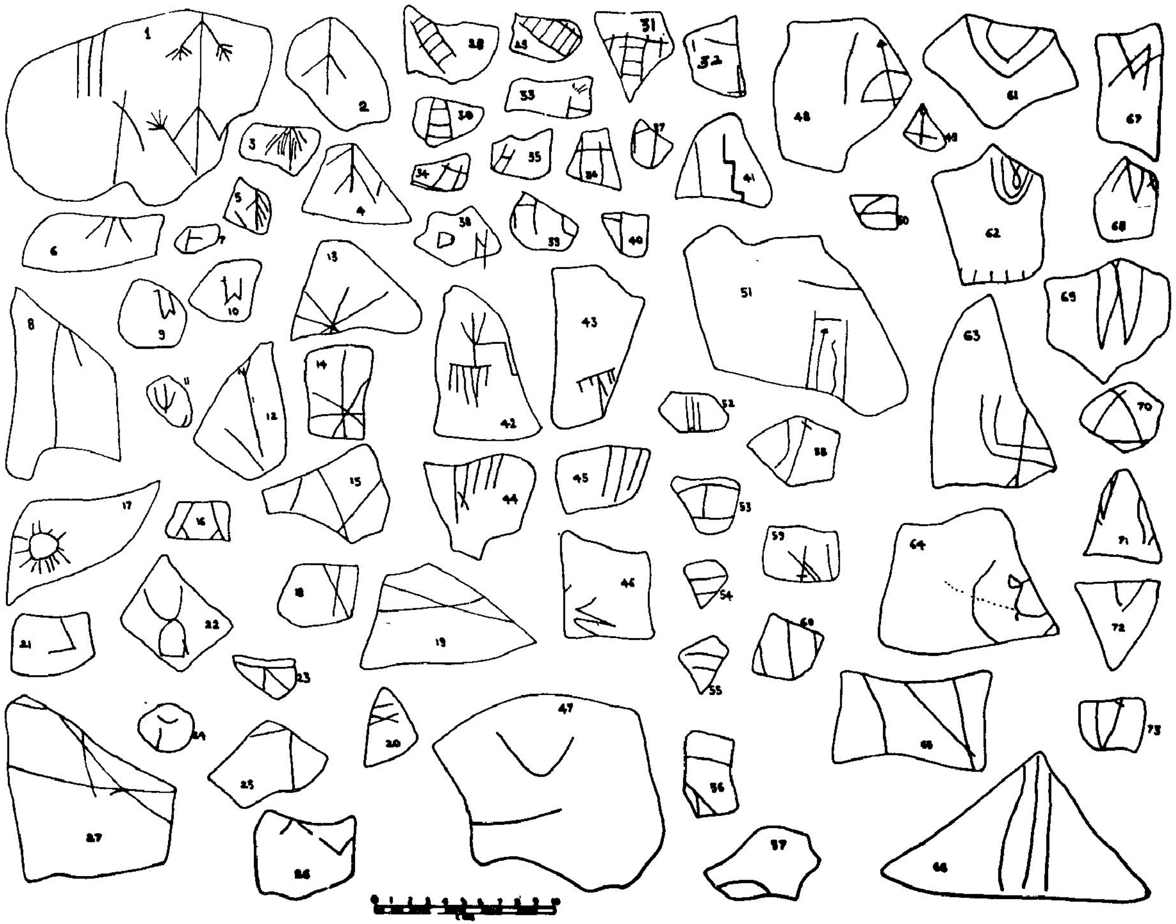


Fig. 24 Graffiti symbols

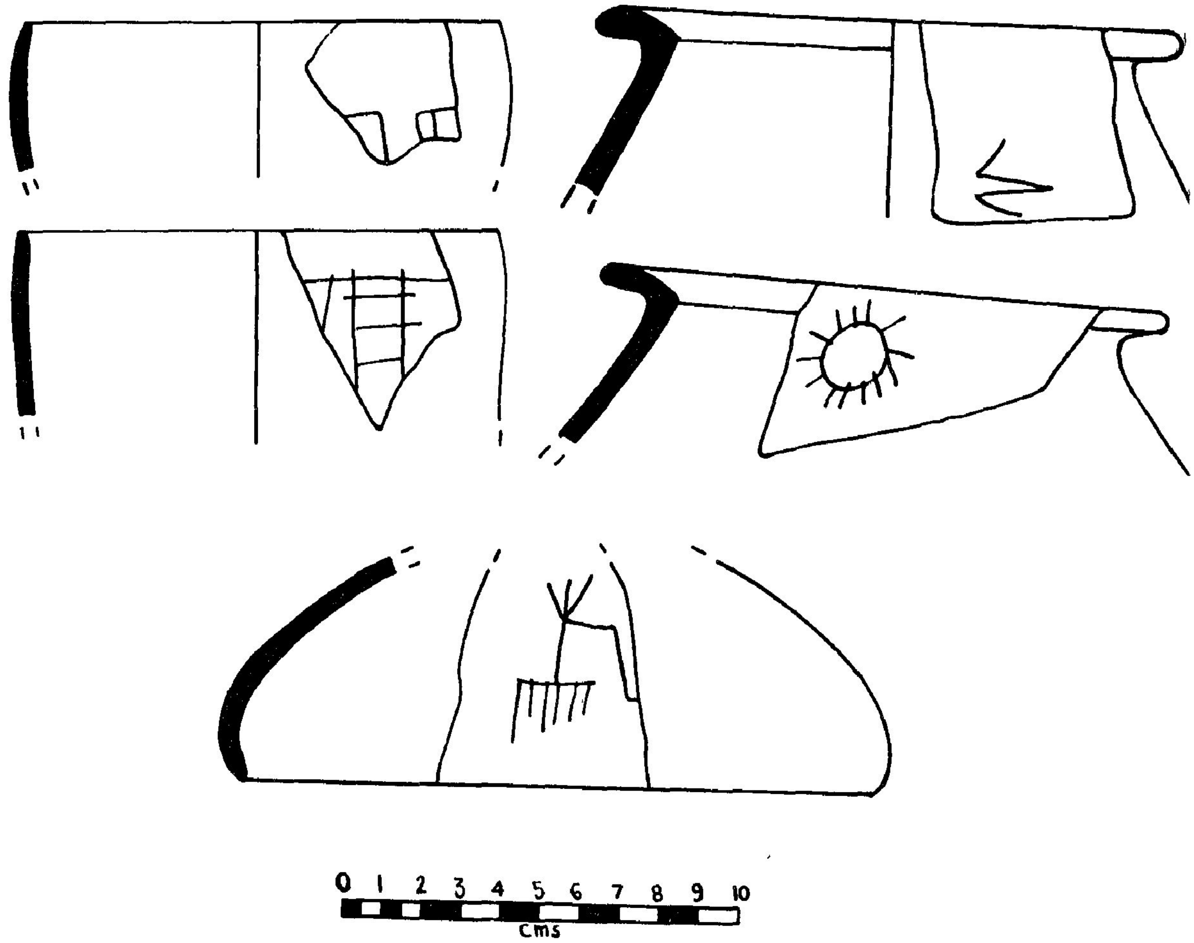
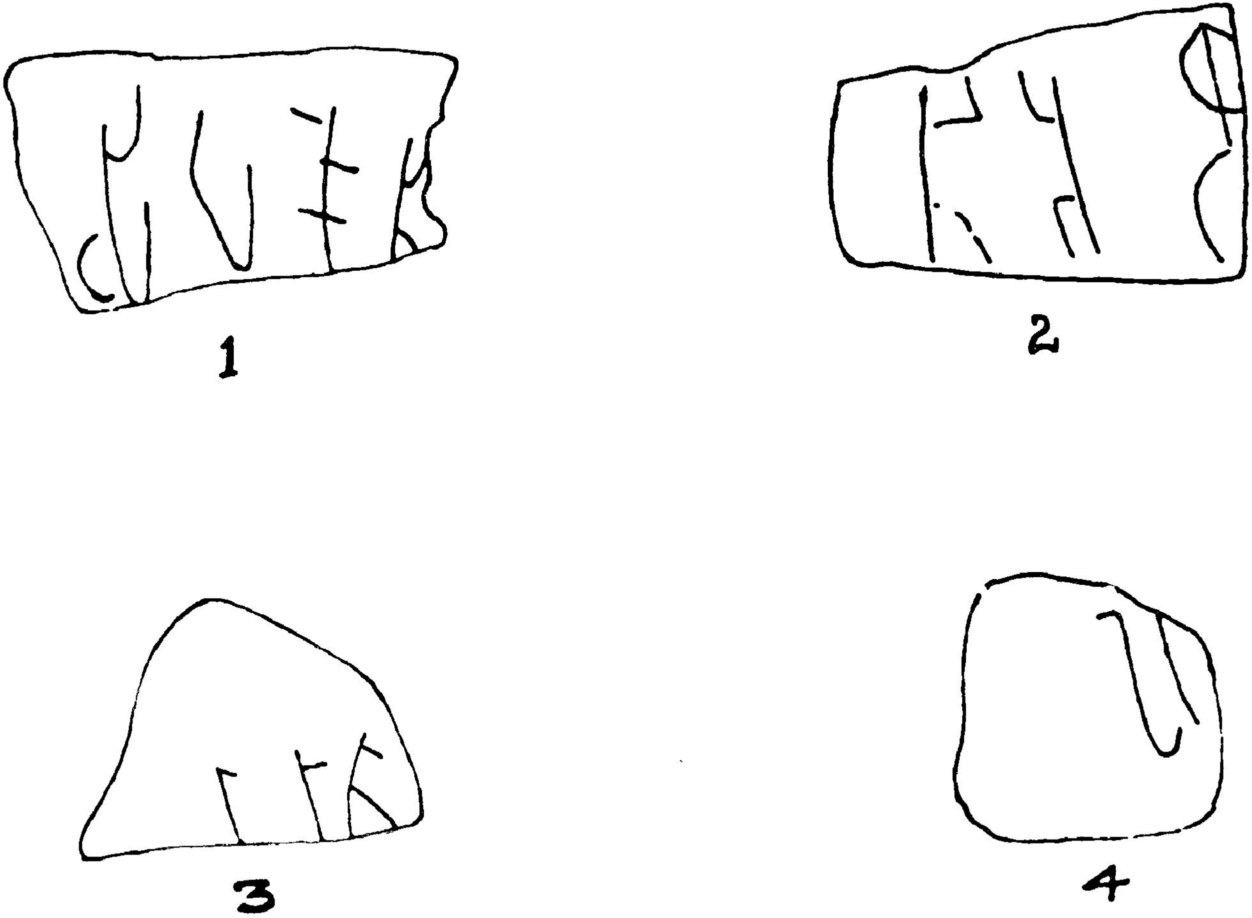


Fig. 25 Graffiti symbols



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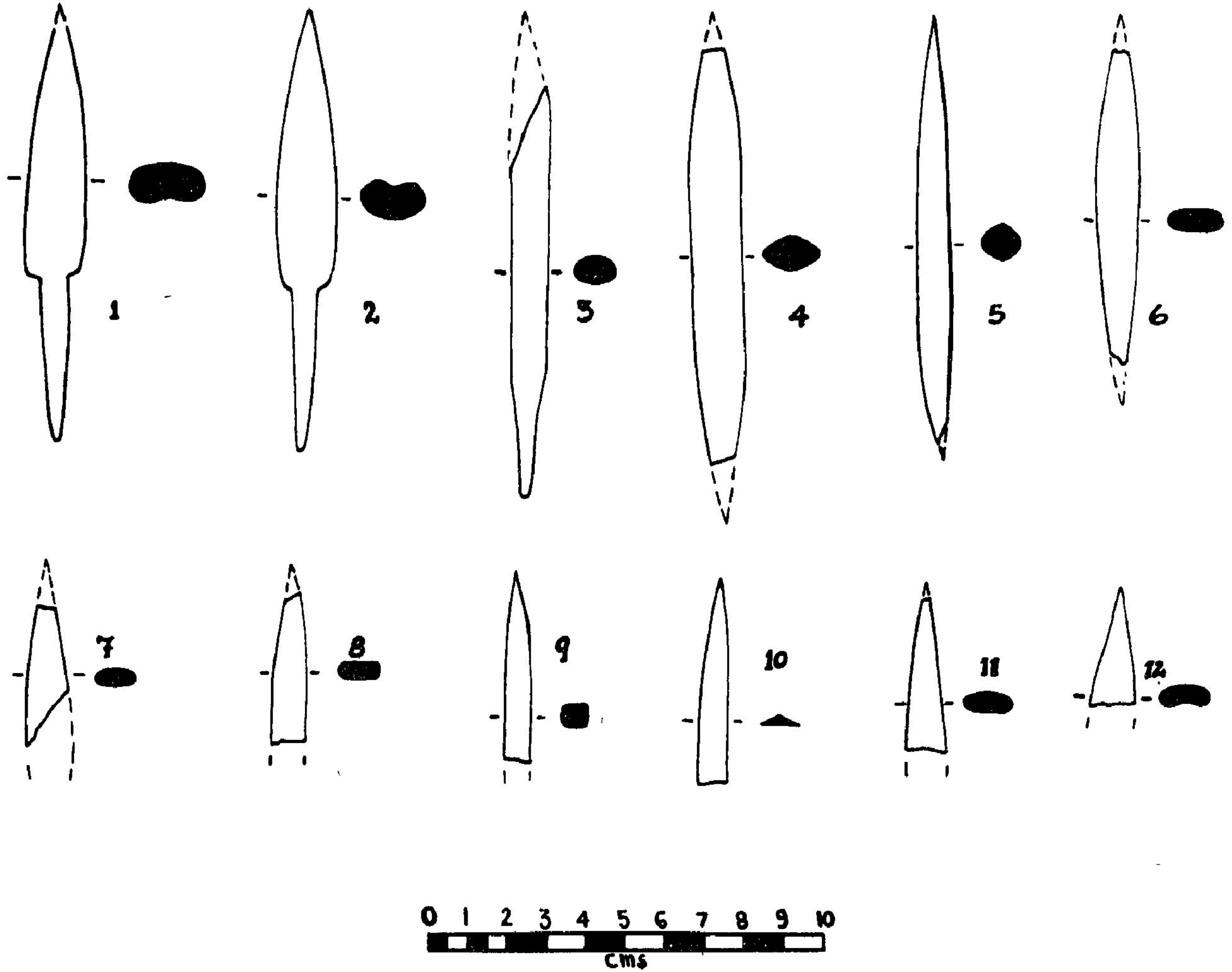
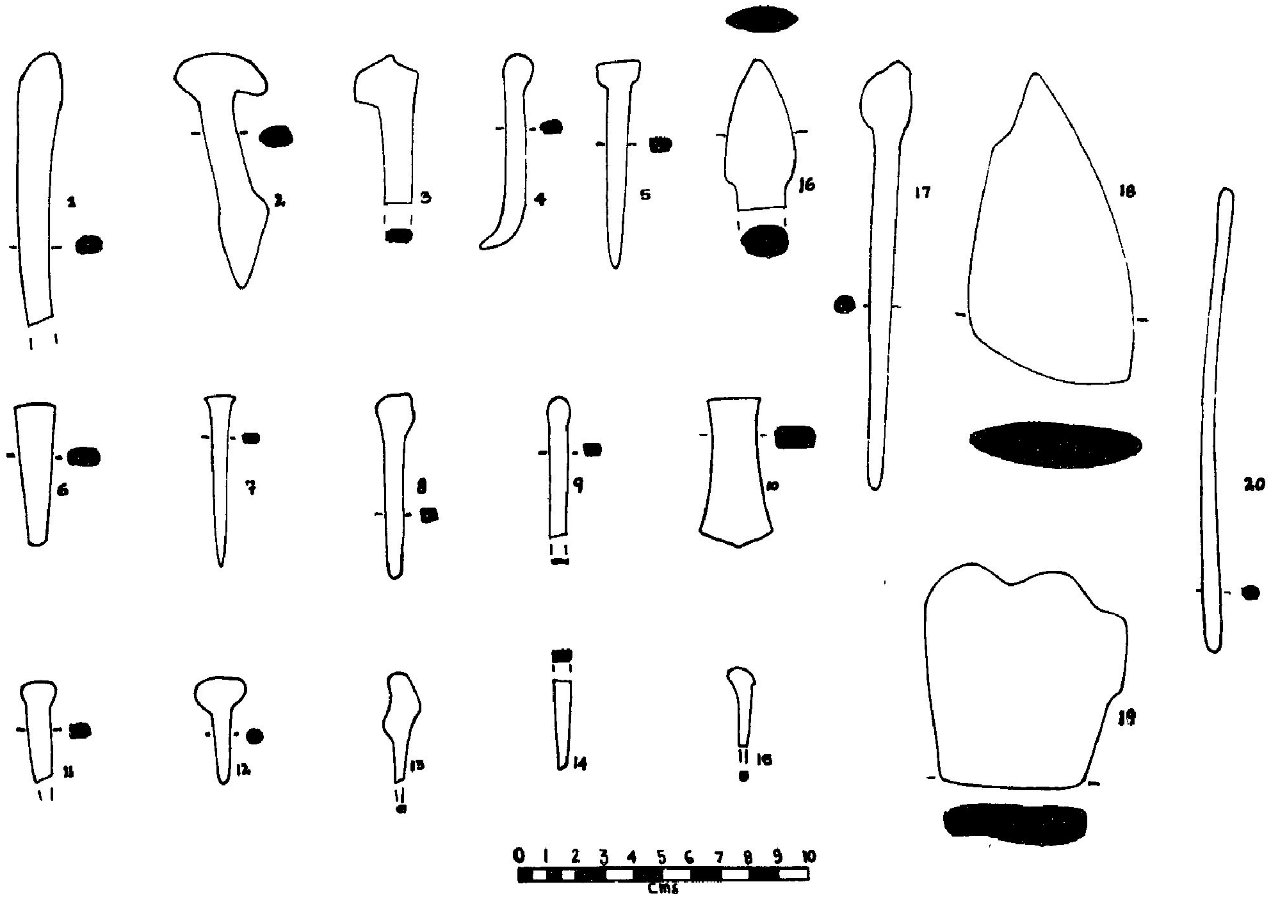


Fig. 27 Bone objects



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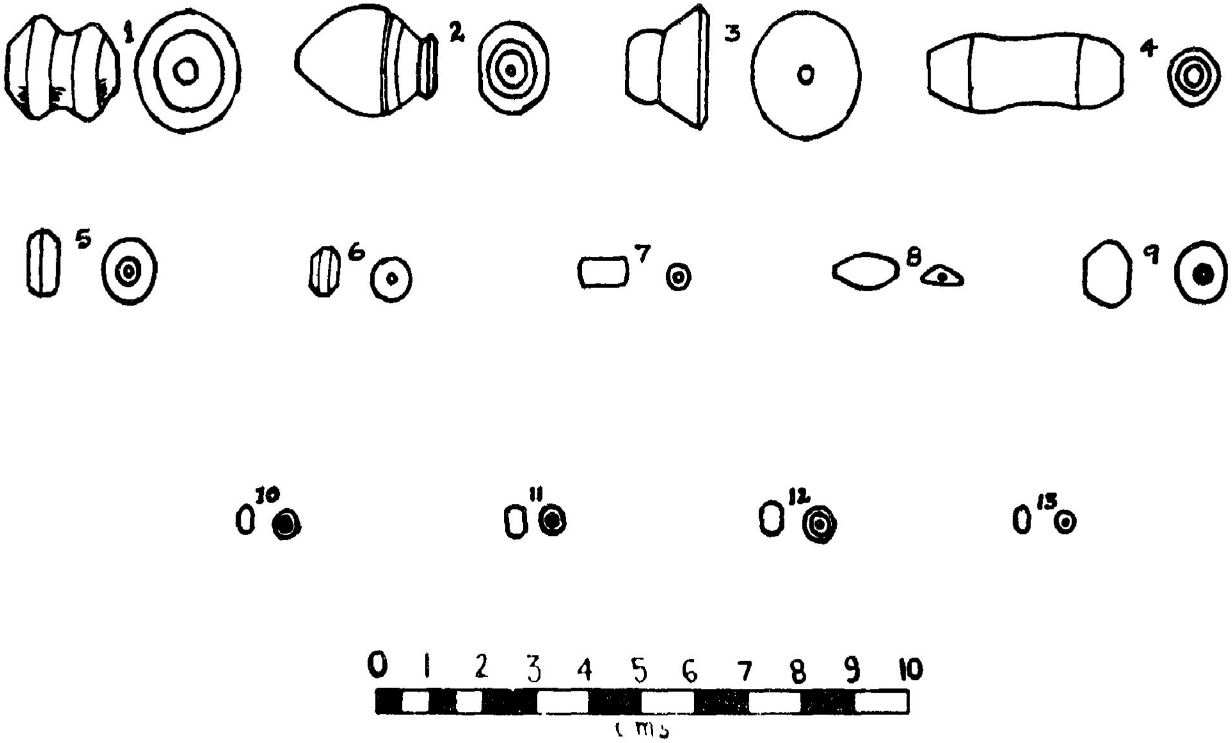

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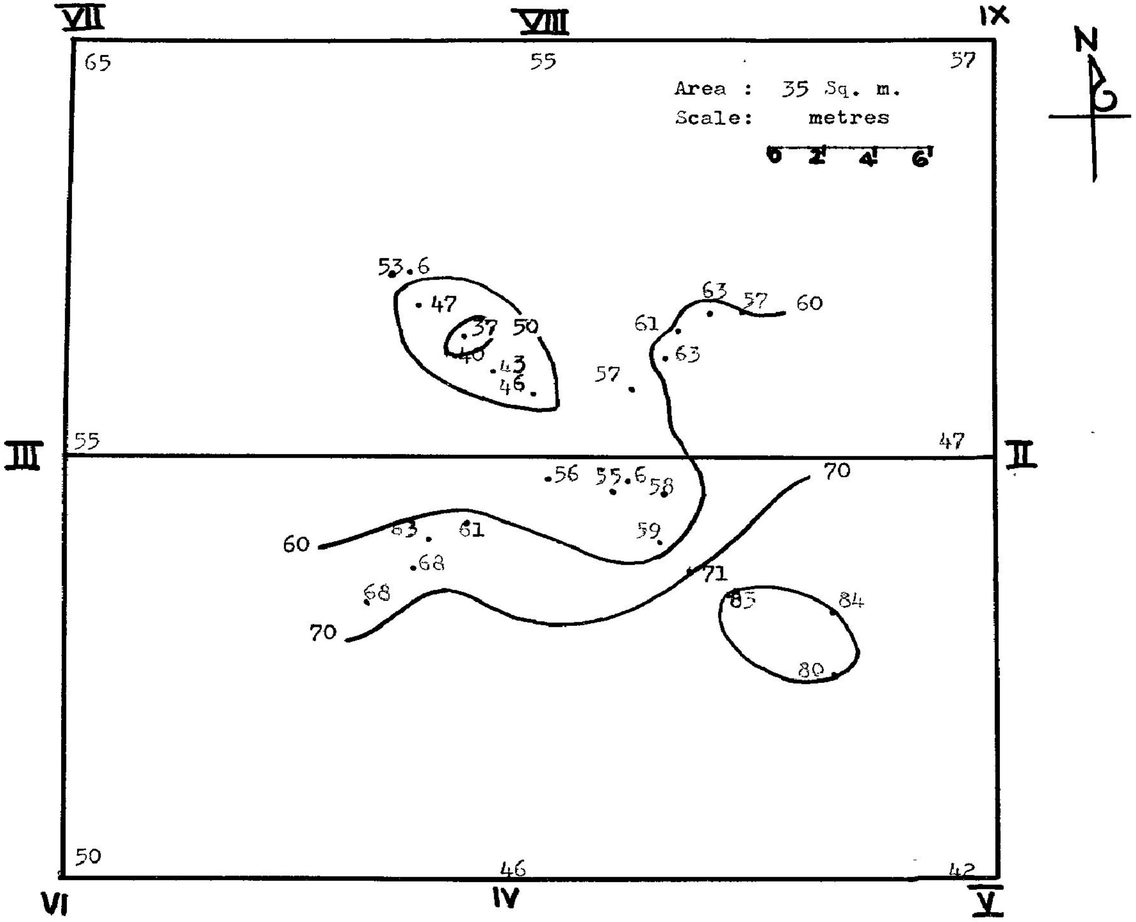
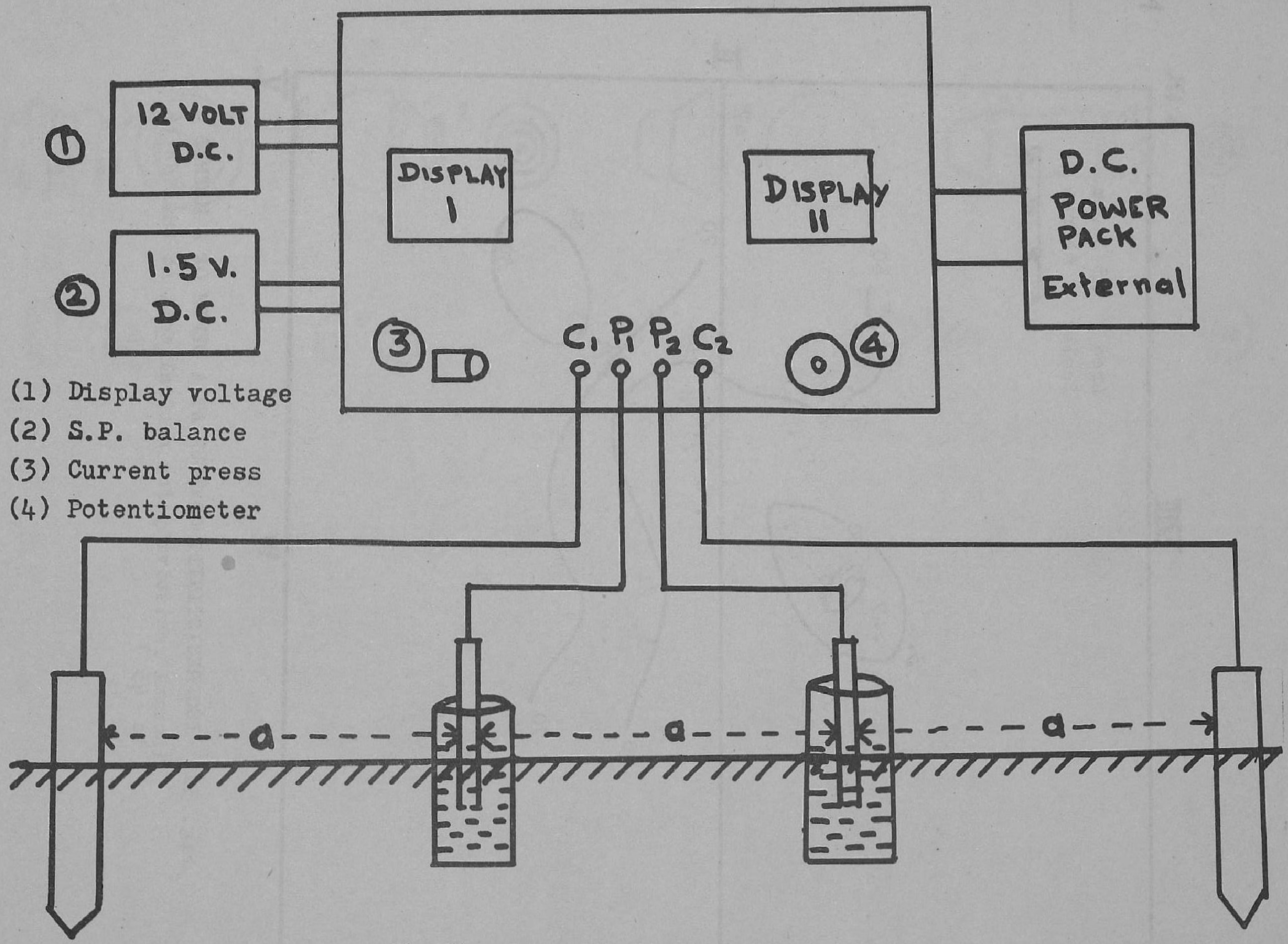


Fig. 30 ISO RESISTIVITY CONTOUR AT A DEPTH OF 2 METRES
(Normal resistivity for natural soil at this depth is 45)



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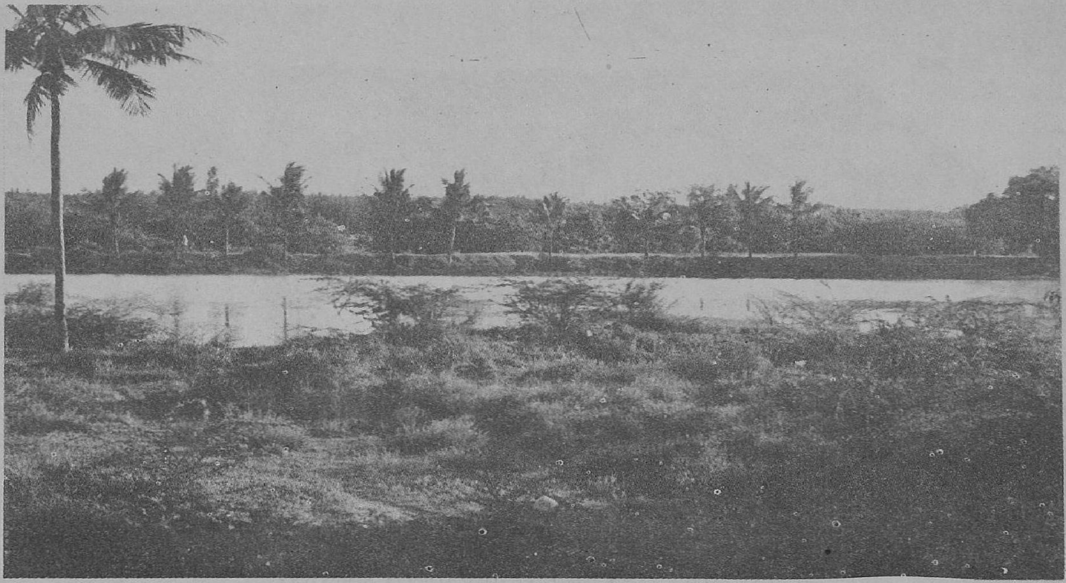

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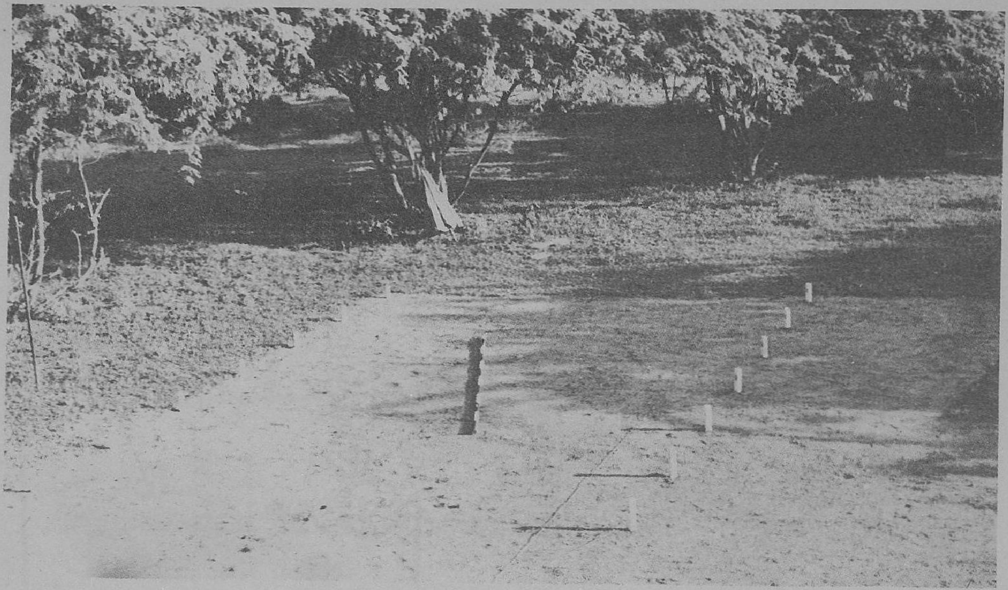


Plate IIA VLM-I before excavation

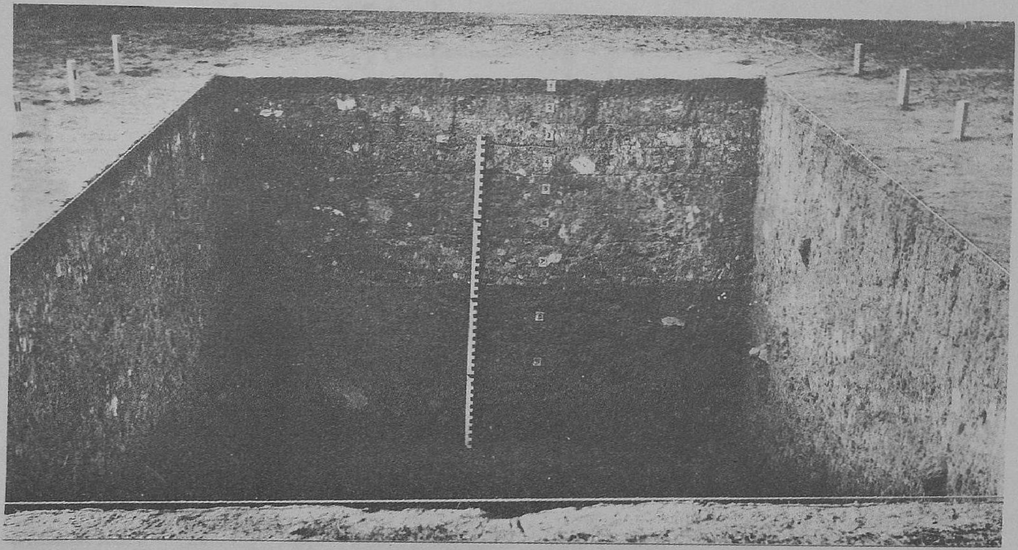


Plate IIB VLM-1 -- northern section

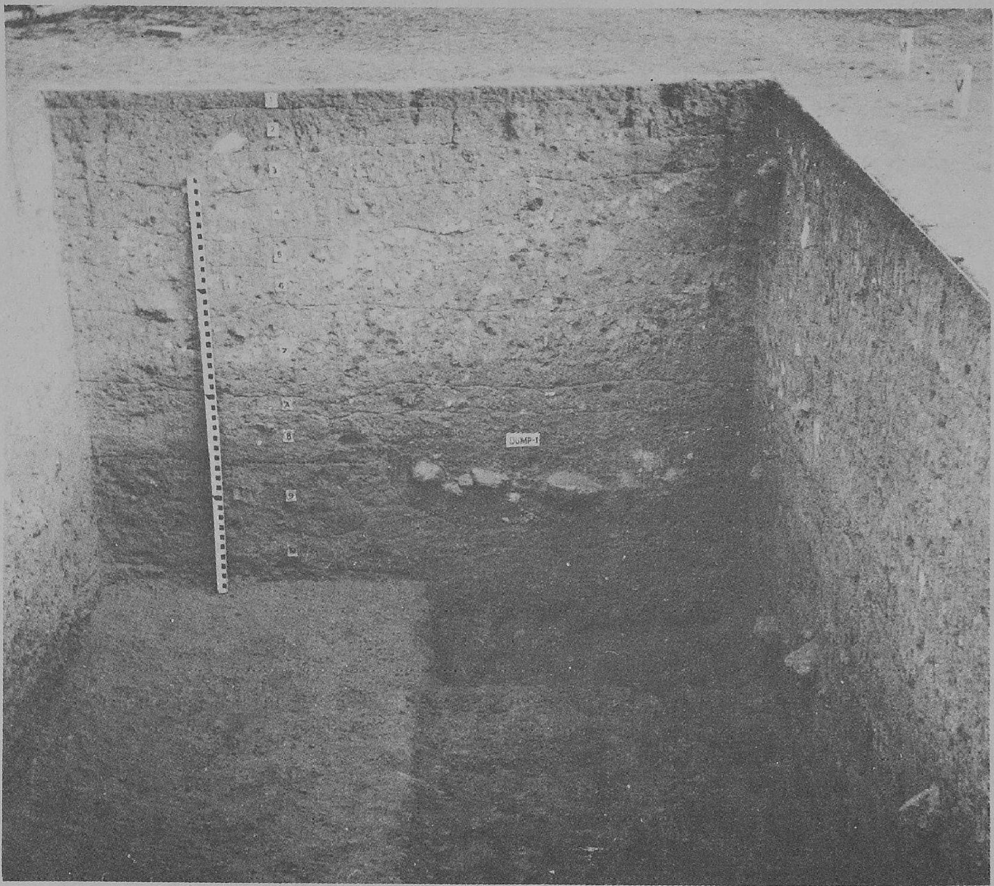
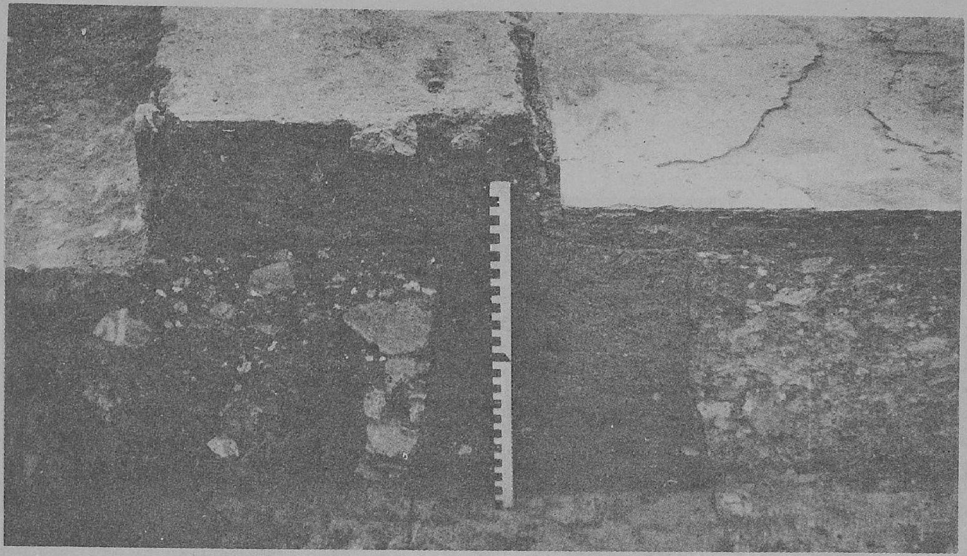


Plate III VLM-1 southern section

Plate IV VLM-1 -- brick pile belonging to peiod II



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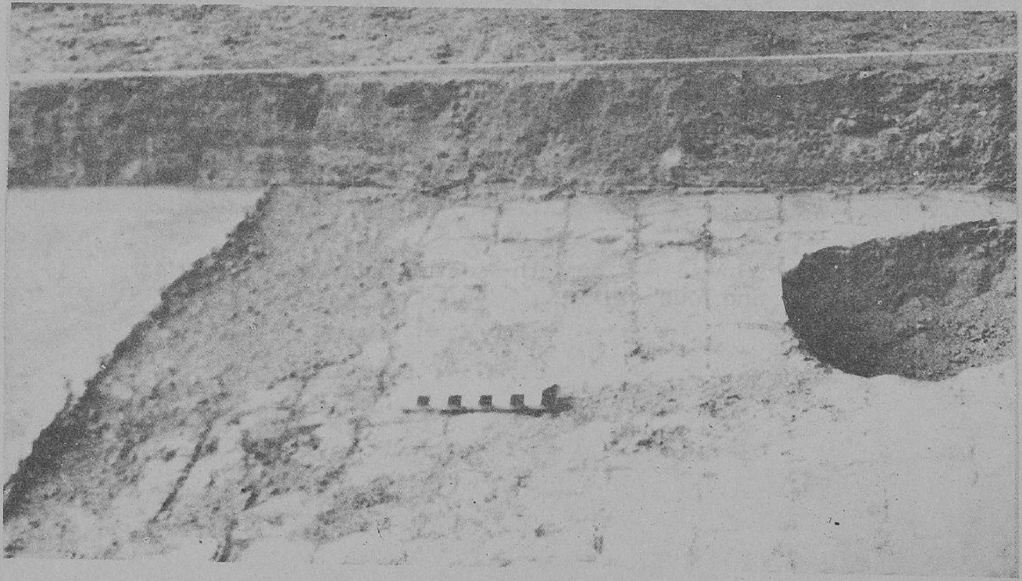

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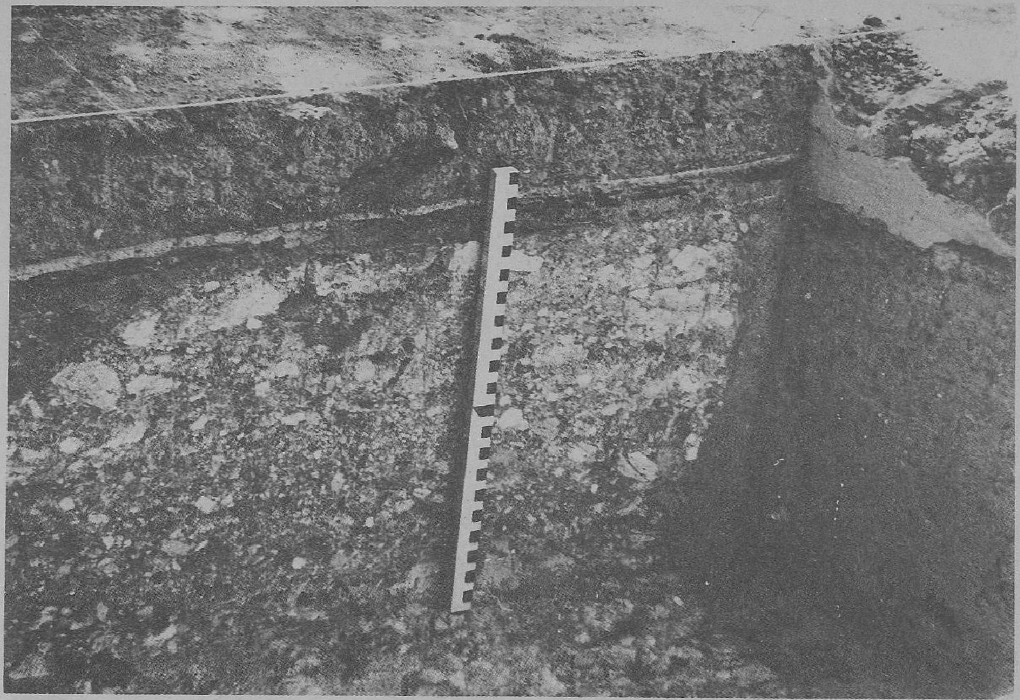

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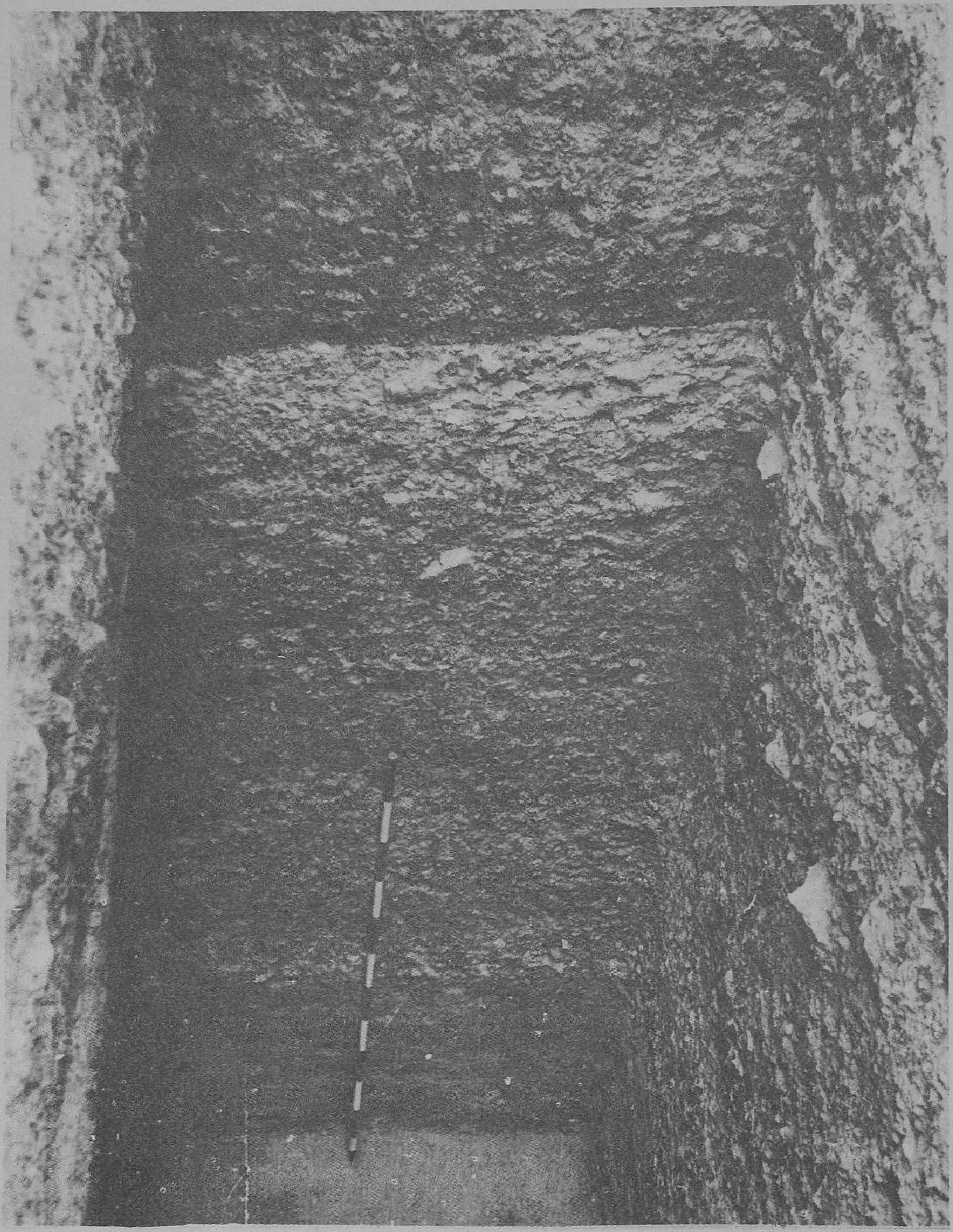

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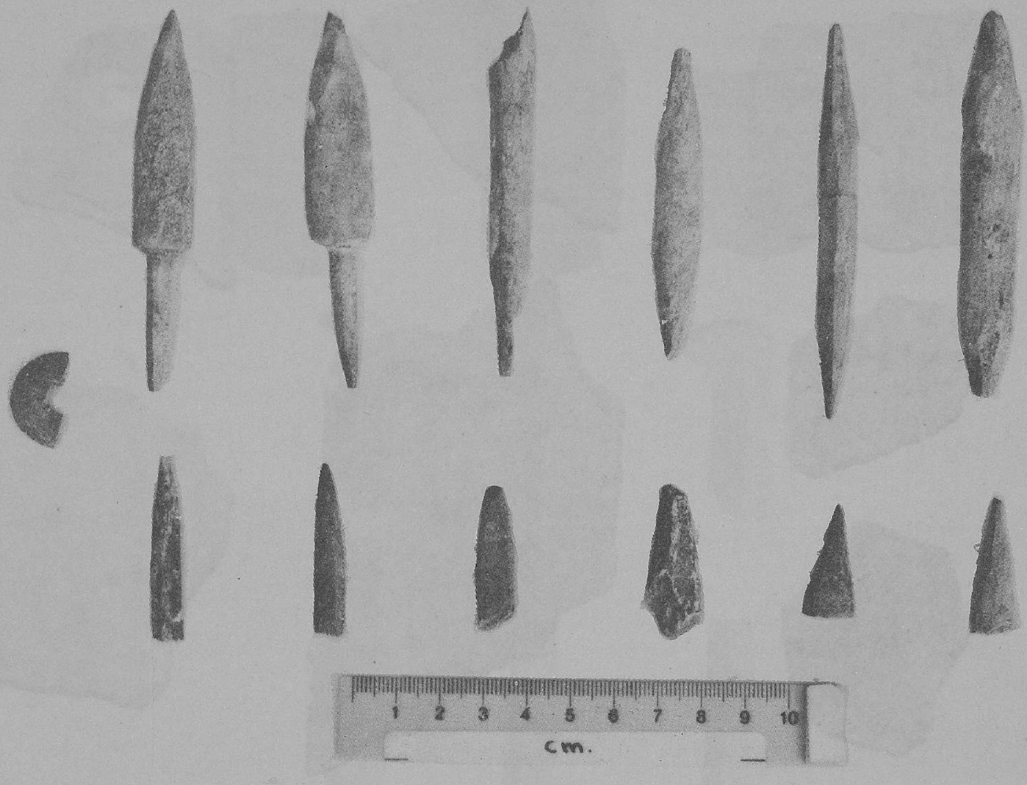

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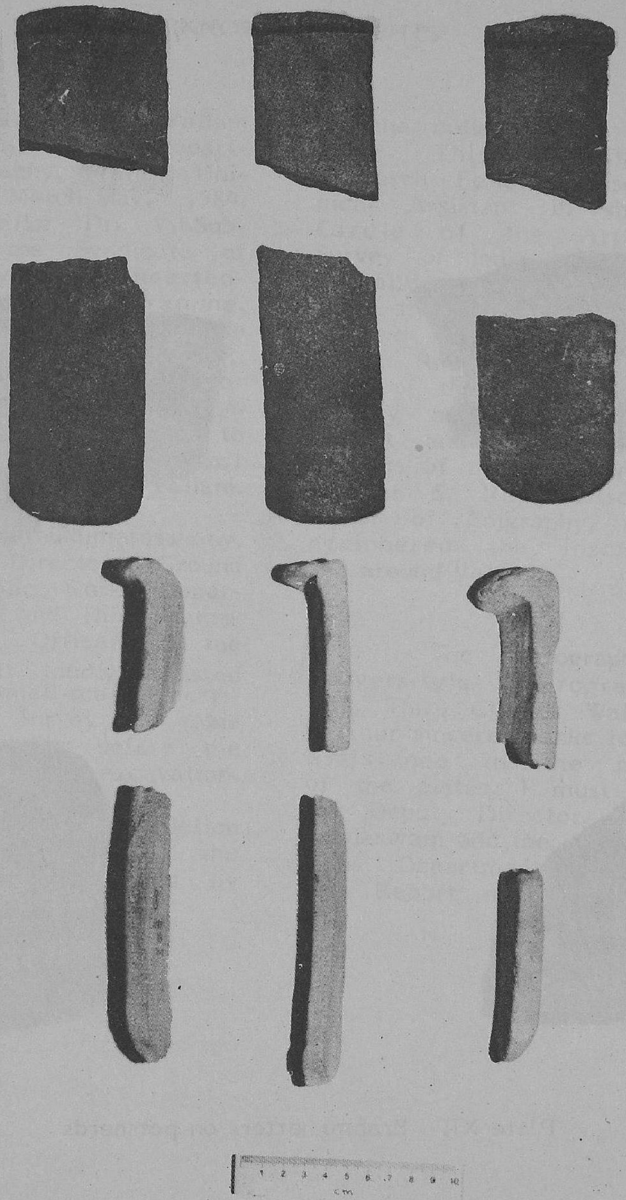

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ACKNOWLEDGEMENTS

The excavations at Vallam were carried out by the Department of Epigraphy, Tamil University during March-May, 1984. The Vice-Chancellor Dr. V.I.Subramoniam and the Syndicate of the University whole-heartedly supported the programme. I wish to convey my gratitude to them. I am grateful to Thiru.R. Ramasamy Udaiyar, Proprietor of Sri Ramavilas Rice Mill, Vallam for his gracious permission to dig in his fields (Survey No.1 79/1) inside the fort at Vallam.

Thiru N. Muthukumaraswamy, M.A., Deputy Director, Ground Water Cell, Public Works Department, Thanjavur and Thiru Ramachandran, M.Sc., Officer of the same Department kindly assisted us in making a small-scale Electricity Resistivity Survey in some portions of the site before the commencement of the excavation.

The successful completion of this work owes a lot to the fine team spirit displayed by all the colleagues in the Department. Thiru.D.Dayalan, Junior Research Fellow (presently Technical Assistant in the Southern Circle of the Archaeological Survey of India, Madras) enthusiastically participated in the excavations through the entire duration of the camp. Thiru. K. Rajan, Junior Research Fellow, prepared most of the line drawings of the pottery and antiquities for this Report and also helped in the analysis of the excavated material. Pulavar S. Raju, Associate Professor of Epigraphy, copied and deciphered the inscriptions in and around Vallam.

The Photographer of the University's Reprographic Section, Thiru Charles Walker, deserves our sincere thanks for rendering assistance in the preparation of the plates. I must also thank the Deputy Director, Thiru. Meykandasivam and the staff of Publications Department for Publishing this Report neatly and promptly.

Y. Subbarayalu.

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